EXTRA! FIRST REPORTS ON THE NEWEST KITS

model car Science

APRIL 1963 35c



• CUSTOMIZING • DESIGNING
• PAINTING • Latest Tricks of the Experts

HOW TO BUILD GREAT MODELS



SPECIAL
TABLE TOP RACING
SECTION

Convert YOUR Models To SLOT RACERS

Build YOUR OWN BIG TRACK At low cost



REVELL MEANS CARS

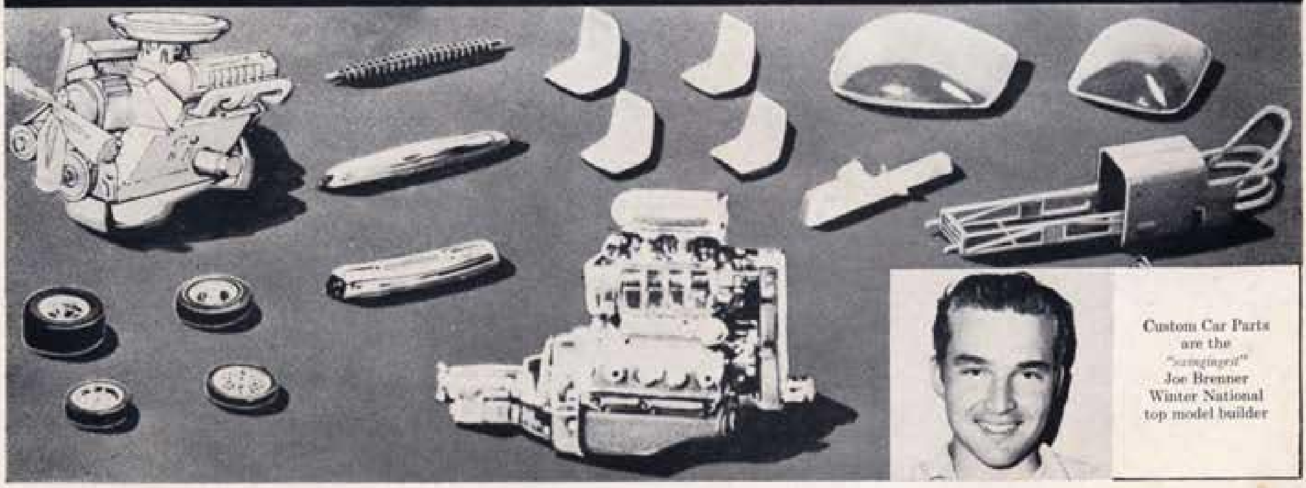
'56 FORD PICKUP

CHALLENGER I OUTLAW

Revell Authentic Kits '57 CHEVY

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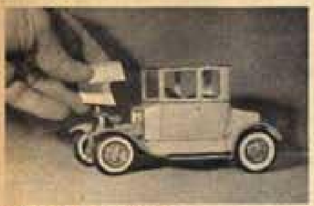
model car Science

COVER — Those three wild originals featured on our cover are the work of model building champion Joe Brenner. You can see more of their details in the story beginning on page 16. Our table top racers are seen in action on the beautiful track at Auto Hobbies in Montrose, California. Photos by Jim Miller

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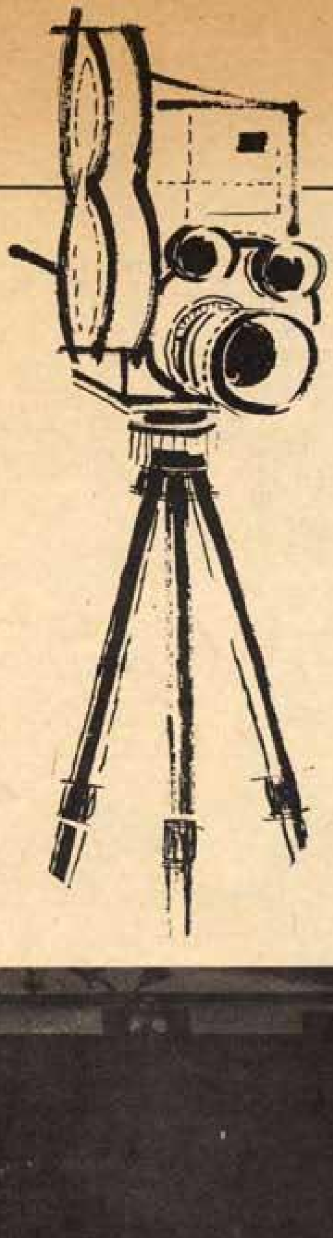






turn to page 15 →

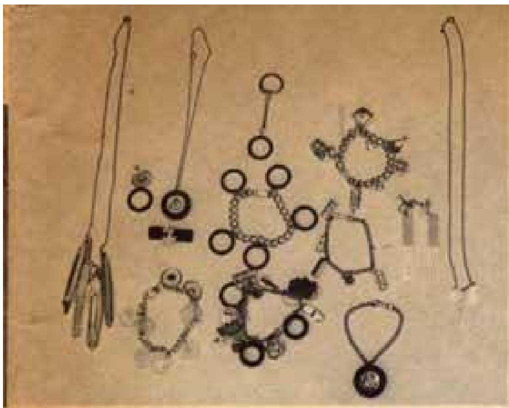
MODEL *Newsreel*





AMT'S styling consultant George Barris poses with the two extreme sizes of his work. The famous customizer experimented with the model that he holds and is now transferring its shape to the full-size Falcon. The crowds below are just part of the large group of New York table top racing fans who witnessed the running of the Ford-Aurora 406 Grand National Competitions.





Here's a new departure for custom model parts. All of this jewelry has been made from Revell's Custom Car Parts accessories. These automotive trinkets: latest thing in teen-age wear.



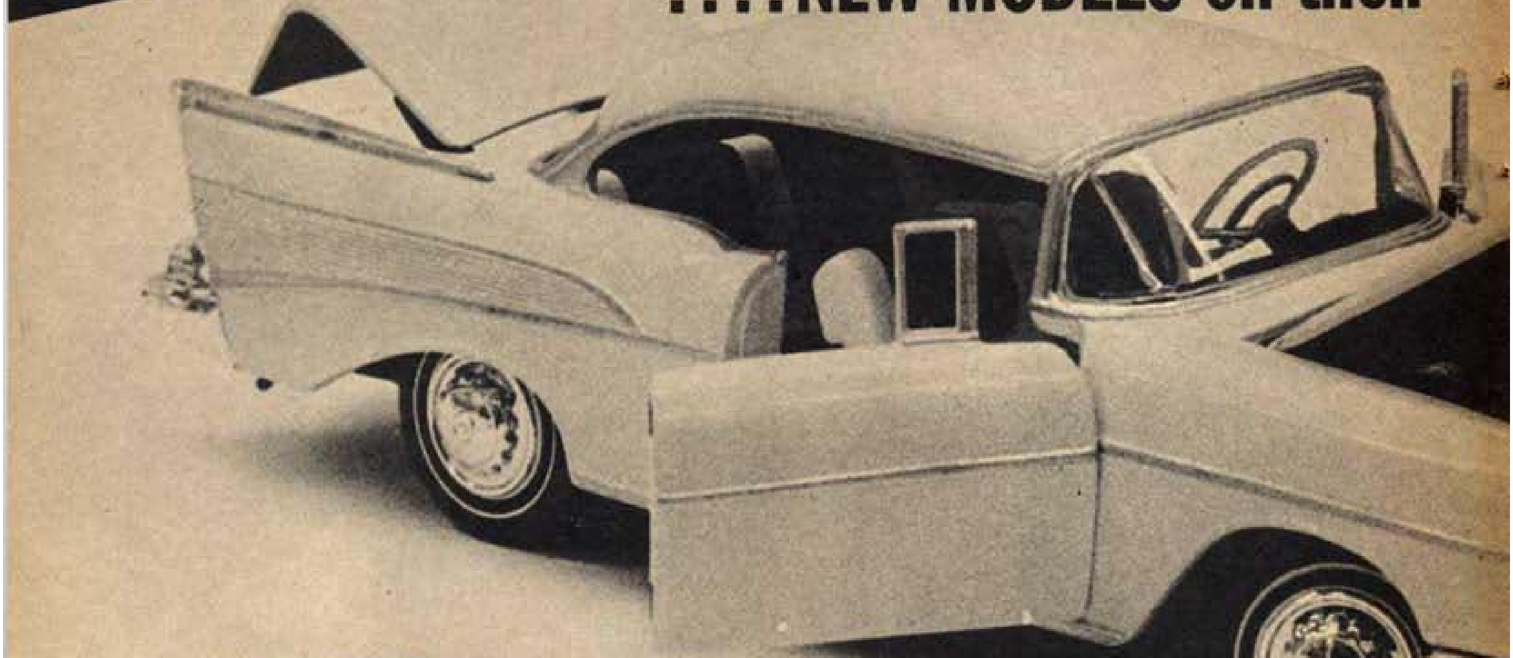
Table top racers anxious to join together are invited to become members of MINRA (Miniature International Racing Association). Package above is sent in return for $3.00 membership fee. The address is MINRA, P.O. Box 51, Dept C, Englewood, N.J.



Jeff McLaughlin, Worth, Illinois, was "Top Eliminator" at the recent International Association of Automotive Modelers convention in Philadelphia. Jeff won prize with his customized version of Revell's '56 Ford pickup truck.

FIRST REPORTS

....NEW MODELS on their



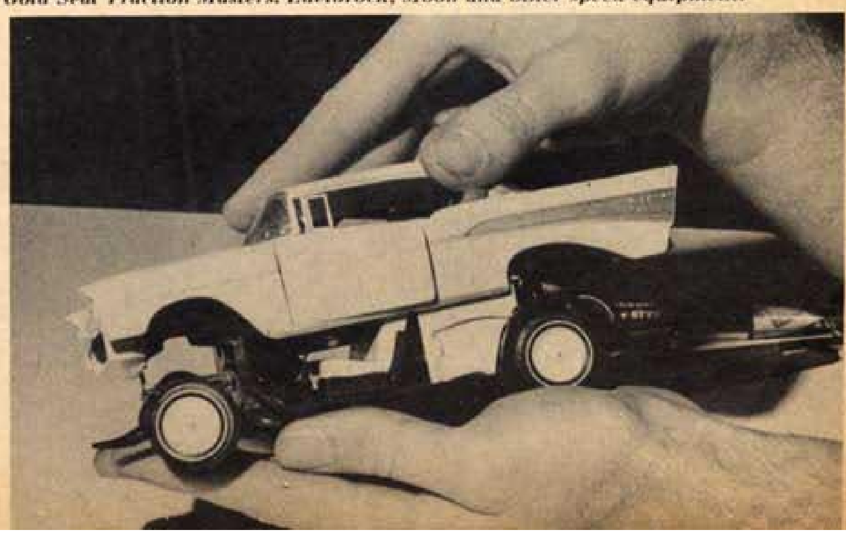
Among the best kept secrets of government or industry are the plans that car model manufacturers have for you. In this fast growing field there is an all-out effort to produce the latest auto developments as rapidly as possible. MODEL CAR SCIENCE has spotted these new kits in motion. They add up to hours of modeling fun on their way.

'57 CHEVY

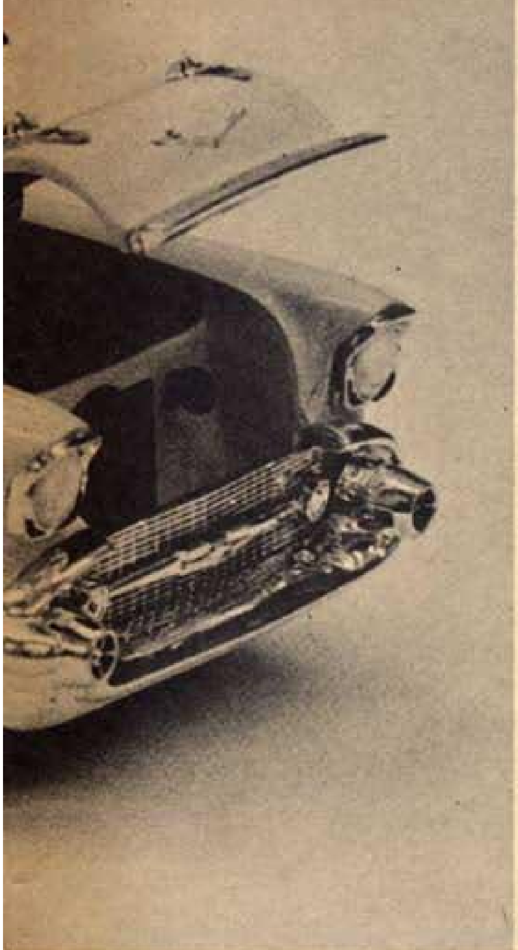
. . . lots of openings

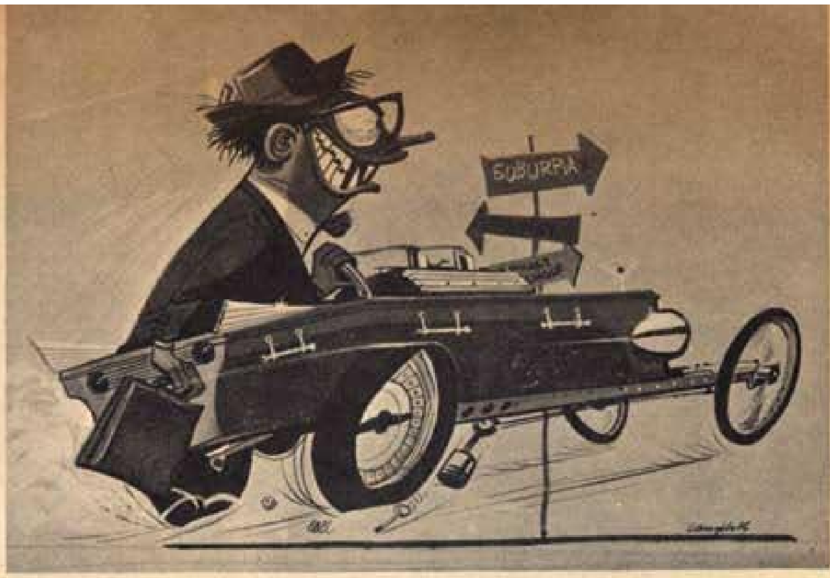
Many unique "firsts" are found in the new 1/25th scale 1957 Chevrolet Bel-Air sport coupe model kit by Revell. Featured are a one-piece body with opening doors, opening hood and trunk and rear quarter windows that can be opened and closed. There is a steerable front end on a miniature axle. Engine is the famous 283 Chevy V-8.

Custom and competition parts included with Revell's '57 Chevy kit are "Scavenger" exhaust pipes. Hedman headers. Sun Tachometer, tubular grille, Gold Seal Traction Masters. Edelbrock, Moon and other speed equipment.

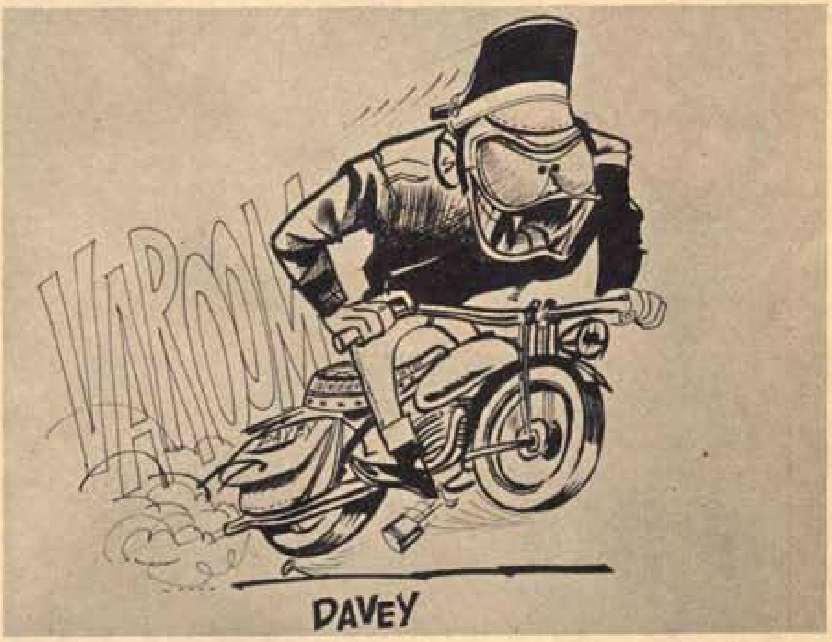


way to you





One of the trio of Hawk's new "Weird-Ohs" is the "Suburbanite," a real commuting dandy who rides through all opposing traffic in a casket-shaped car.

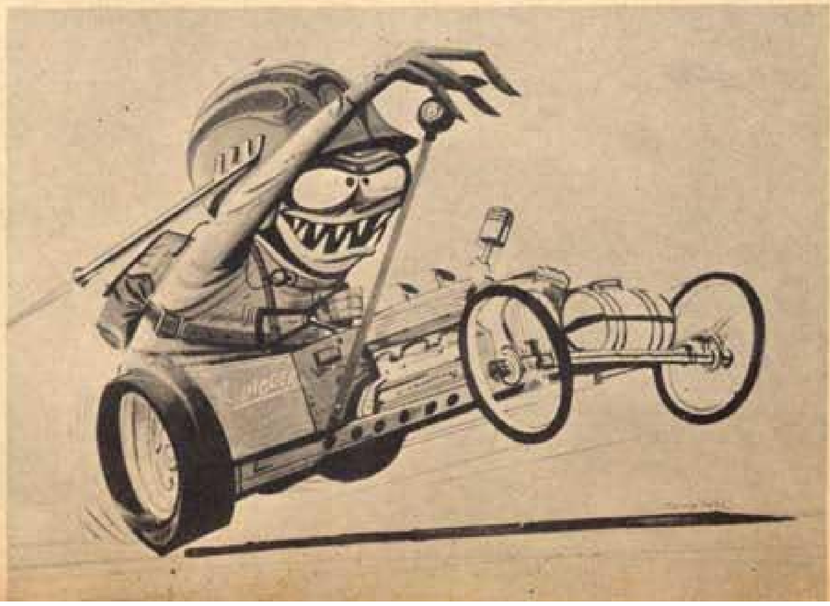


Two more of the "Weird-Oh" trio are the "Motorcyclist Road Blaster" (above) and the hot-rodding "Digger" (below). Each of the kits will sell for $1.00.

Weird-Ohs

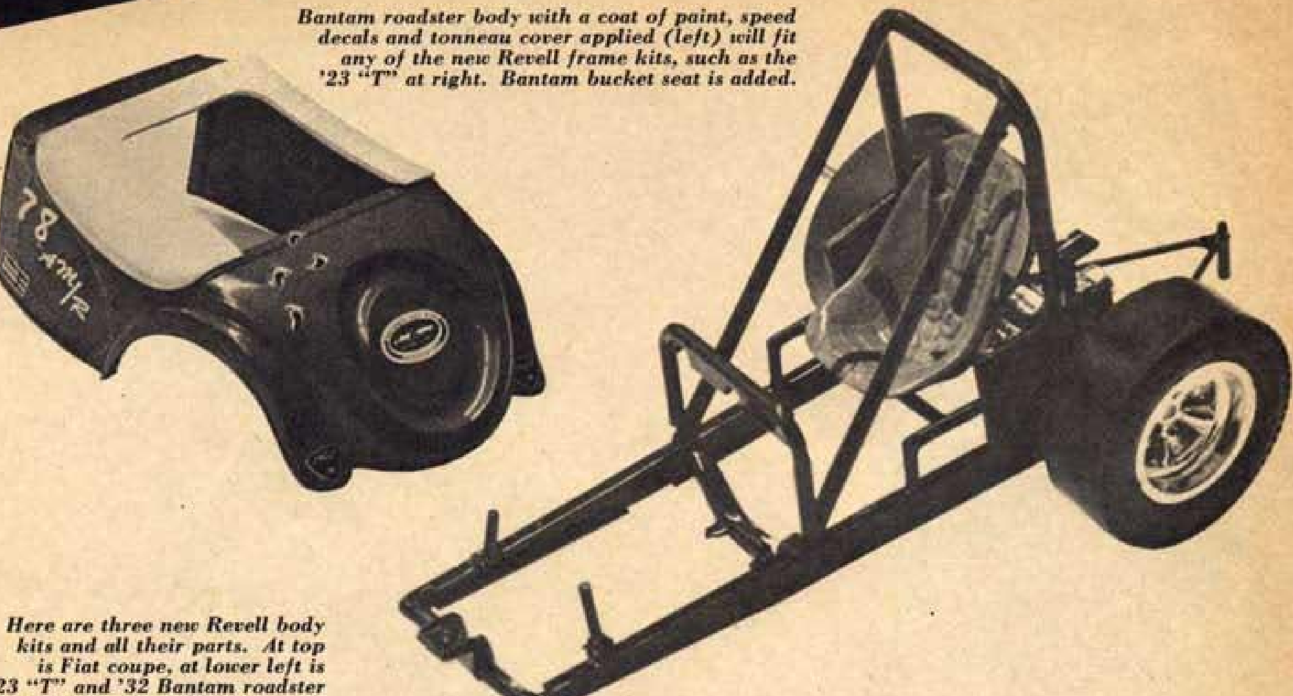
. . . model monsters

Fresh out of your nightmares and those wild auto sweatshirts, comes a new concept in car models from Hawk. The "Weird-Ohs" put into plastic kits the very imaginative freaks that you have seen drawn by some of the car world's more imaginative artists. For their introduction, three of the charming horrors will take a bow.

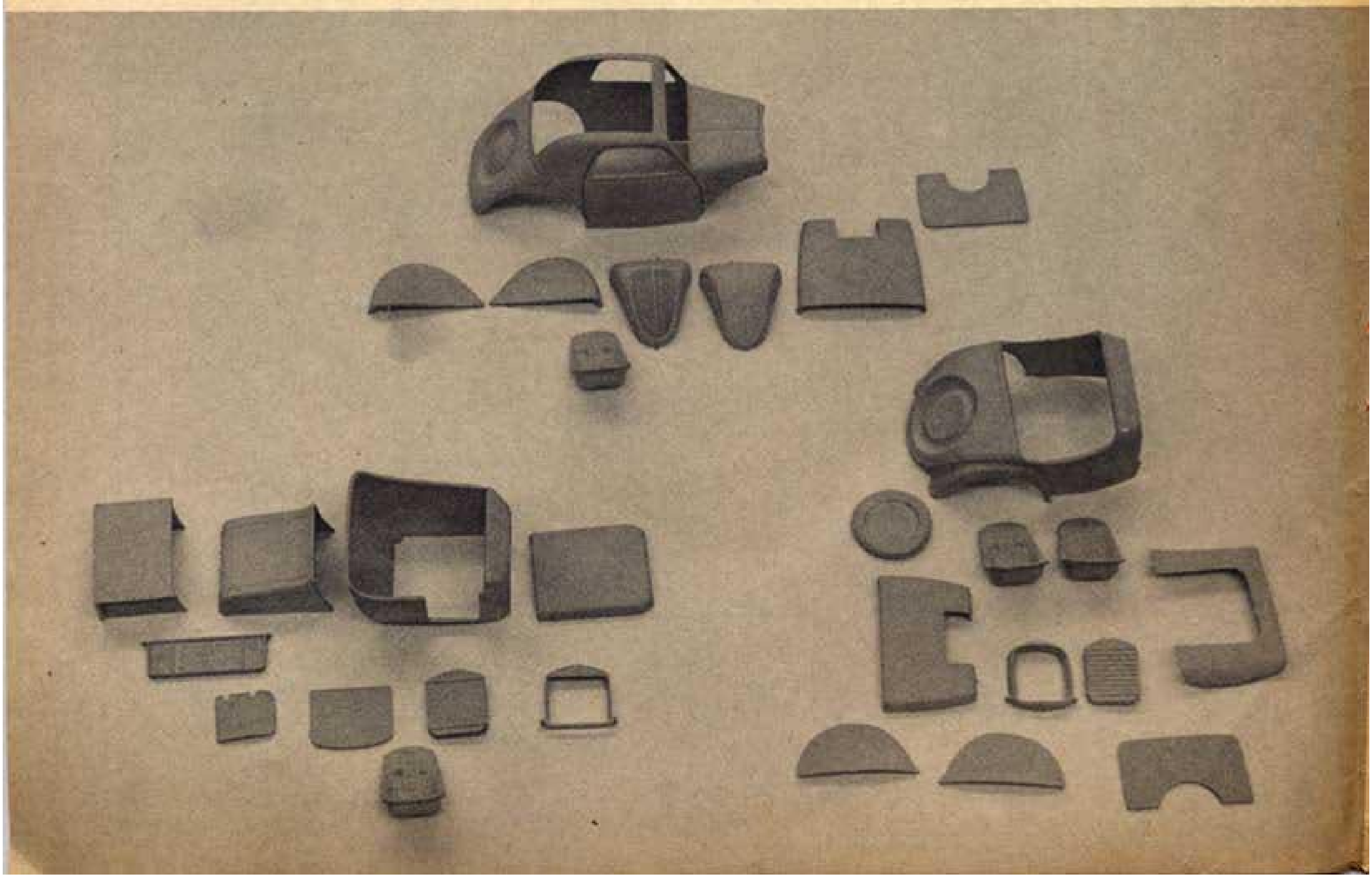


FIRST REPORTS

Bantam roadster body with a coat of paint, speed decals and tonneau cover applied (left) will fit any of the new Revell frame kits, such as the '23 "T" at right. Bantam bucket seat is added.



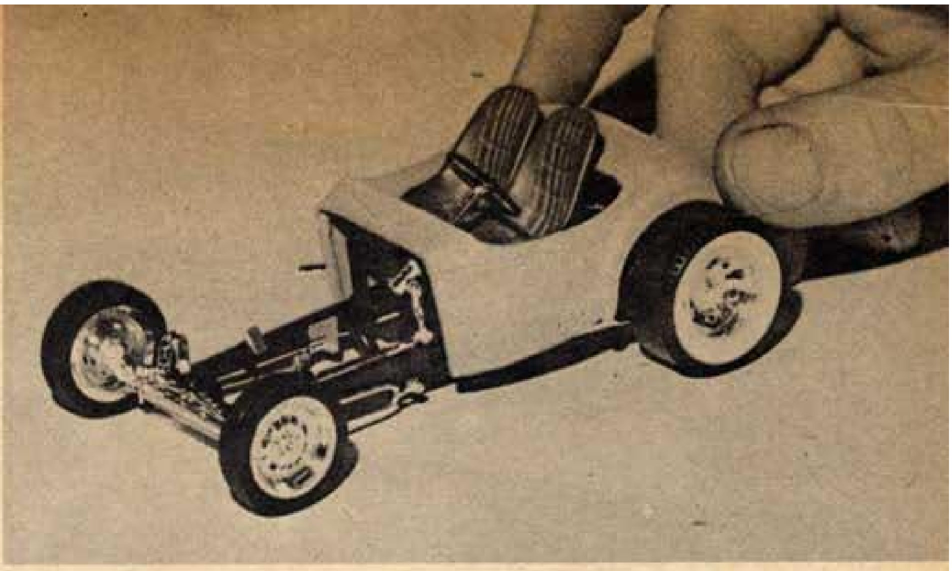
Here are three new Revell body kits and all their parts. At top is Fiat coupe, at lower left is '23 "T" and '32 Bantam roadster is at lower right. All will be sold at Revell customs parts displays.

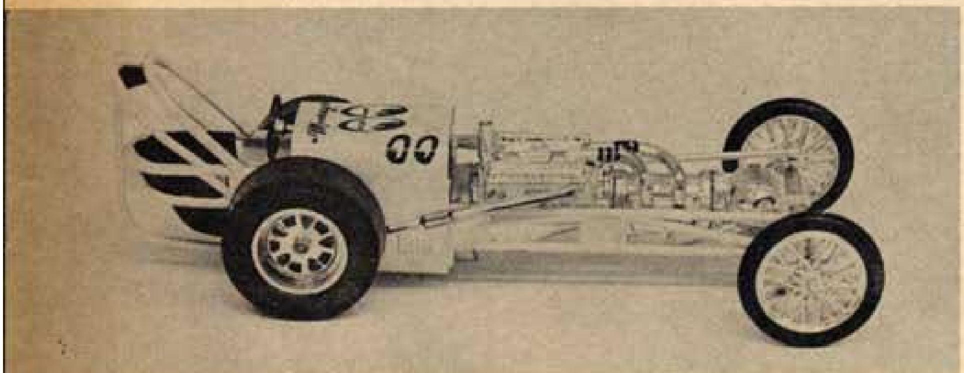


HOT ROD BODY KITS

. . . more custom parts

Following up on the great popularity of its Custom Car Parts, Revell is about to unveil new components that will open up new worlds of custom building for the modeller. On their way to you are 1/25th scale replicas of the famous Cal Automotive fiberglass bodies . . . the '23 "T" Roadster, the '32 Austin Bantam and the competition Fiat Coupe. Revell is also releasing chrome frame kits for these bodies.





A Bantam roadster body is joined to the '23 "T" frame kit. Also added here are white-wall slicks, competition wheels, speed roadster chassis speed equipment . . . all available from Revell.

Another new frame kit allows you to build your own version of the famous "Mooneyes" dragster. The kit comes complete with the "Mooneyes" decals.



Hubley's metal models are an interesting variation for the car fan who seeks solid reproductions. Specializing in famous automotive classics rather than customs and rods, the Hubley line has two new additions: the 1930 Model "A" Ford coupe and the 1932 Chevrolet Roadster.

Two of Hubley's metal models are the 1930 Ford Coupe (left) and the 1930 Packard roadster (below). Due to join them soon is '32 Chevrolet roadster.



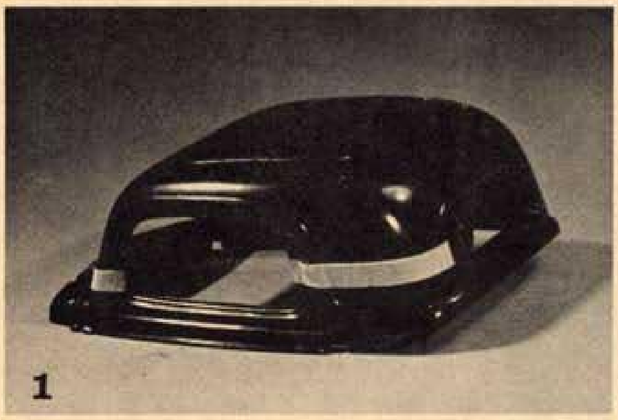
Echoes of the '30's

. . . classics in metal

Custom Build A . . .

Competition COUPE





1

Mark two parallel lines about 1/8 inch apart around top of body. Cut top with razor saw, follow marked lines. Smooth the cut edges with a file or fine sandpaper.

To the car restorer it has already become a classic; to the custom builder, its clean lines make it easily adaptable to form a top show car; and its ruggedness makes it the basis for many of the top competition cars on the track today. It's the 1934 Ford — a remarkably versatile car from the standpoint of the full-scale hot-rodder and an excellent choice for the scale modeler. As far back as the early 1950's this same car was used as the basis for many of the "D" modified competition coupes then burning up the strips. One of the most successful was the coupe owned by Bob and Dick Pierson, which set a new class record of 153 mph at Russetta, following an earlier run of 149.005 mph at Bonneville.

We have chosen the Pierson car as the subject for our model. Monogram's 1934 Ford Coupe is ideal for the basis. Everything but the rear wheels and tires, wheel covers and nose are included in the kit. These extra parts are from Monogram's Midget Racer and Black Widow kits.



2

Cut a slot across the inside of the top, parallel to the windshield opening, so posts can be bent forward. Cement the two parts of the top together and let dry overnight.



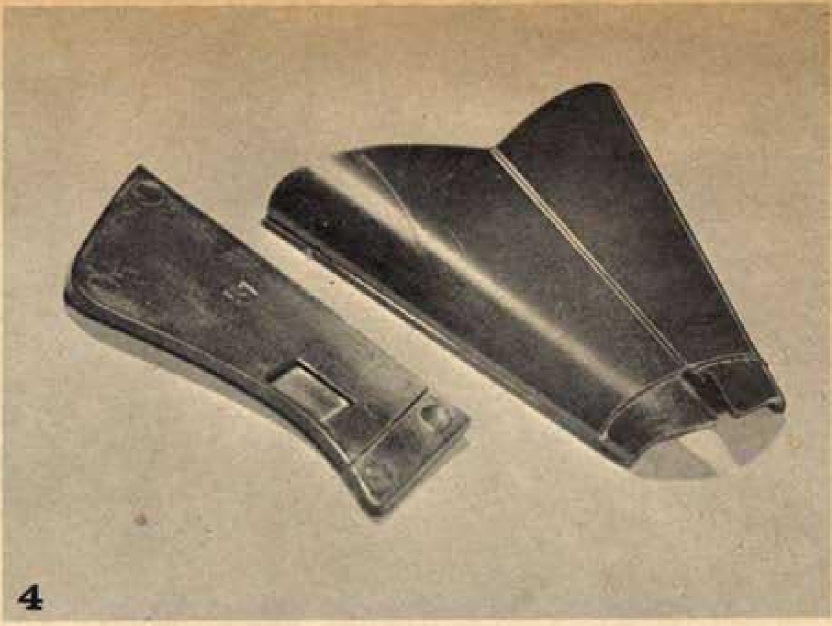
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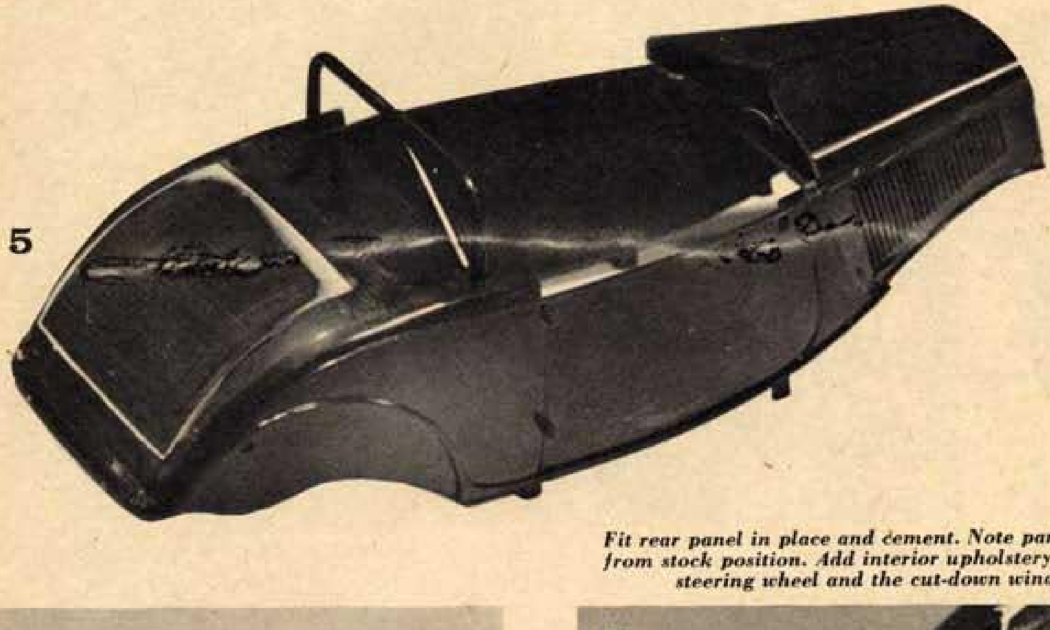
Fill in the cracks at the seams with body putty. Apply the putty in thin layers, allowing plenty of time to dry between coats. When completely dry, sand the surface smooth.

Here's how you can re-create a great speed champion, using Monogram's 1934 Ford Kit

Cut off the front portion of the hood behind the cut-out for the radiator filler. Next trim the hood side panels to match hood top. File edges smooth.

Cement hood top, side panels, rumble seat lid and roll-bar in place (figure 5, below). Cut roll bar to fit inside chopped top. Cement top in place.

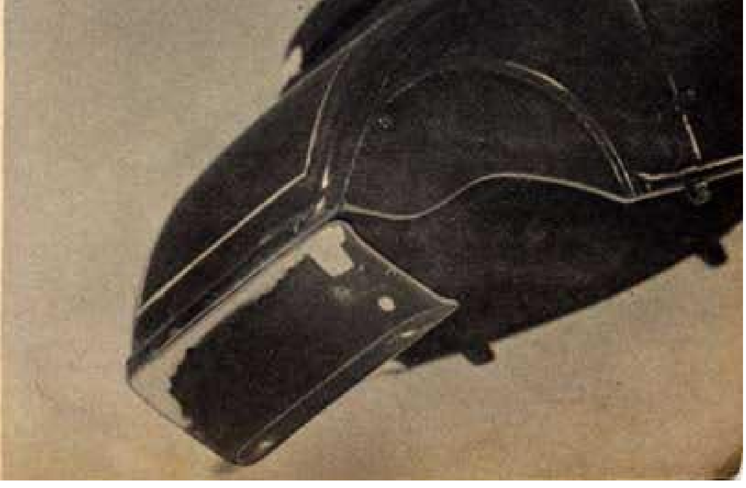

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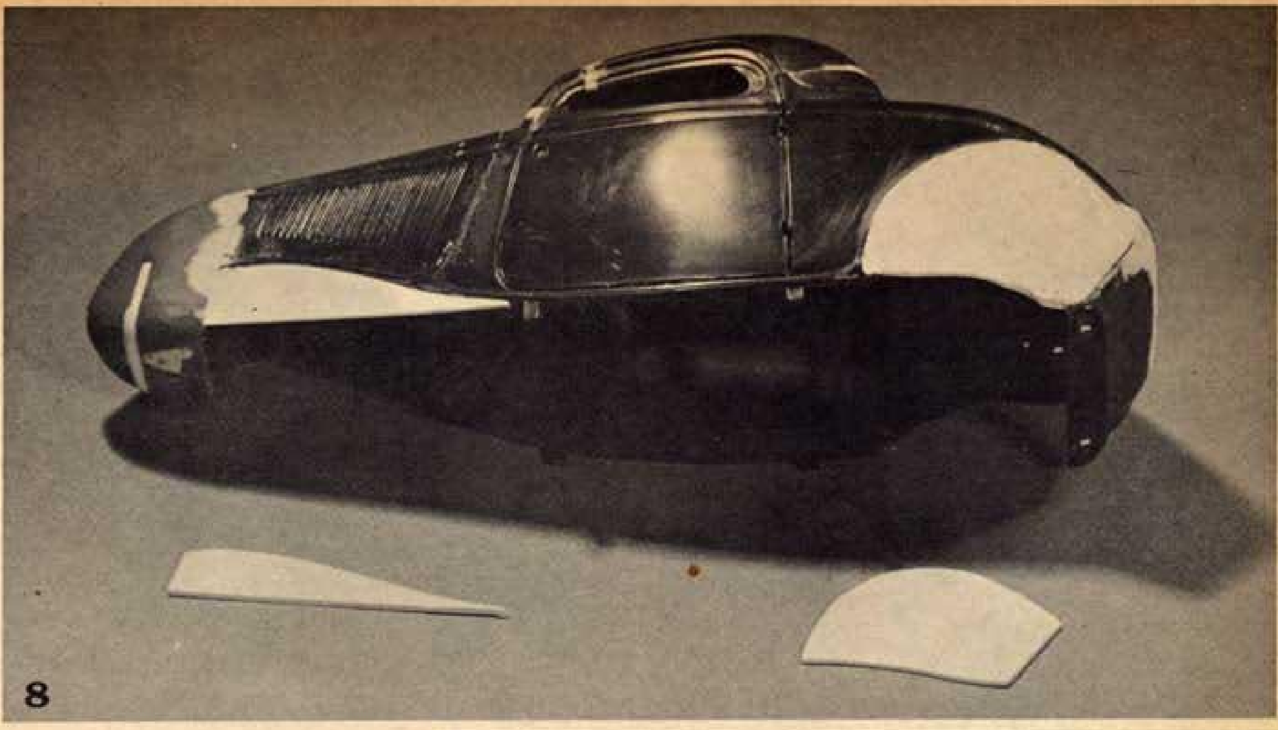

5

Fit rear panel in place and cement. Note panel is reversed from stock position. Add interior upholstery panels, dash, steering wheel and the cut-down windshield frame.


6

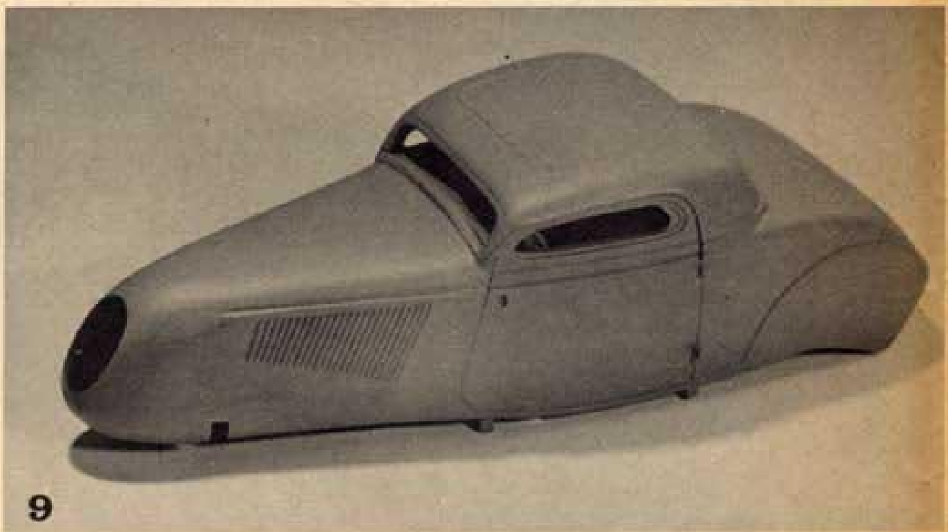
Remove all raised portions of the rear pan section. Fill the cut-out areas and holes with scrap plastic and body putty. When all this is dry, sand entire area smooth.

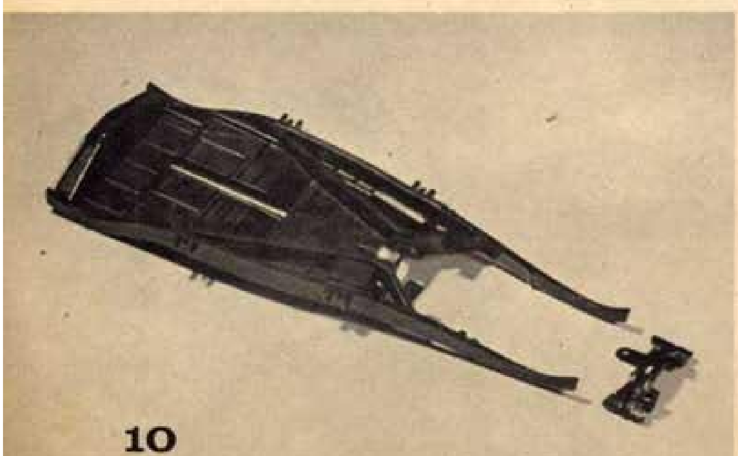

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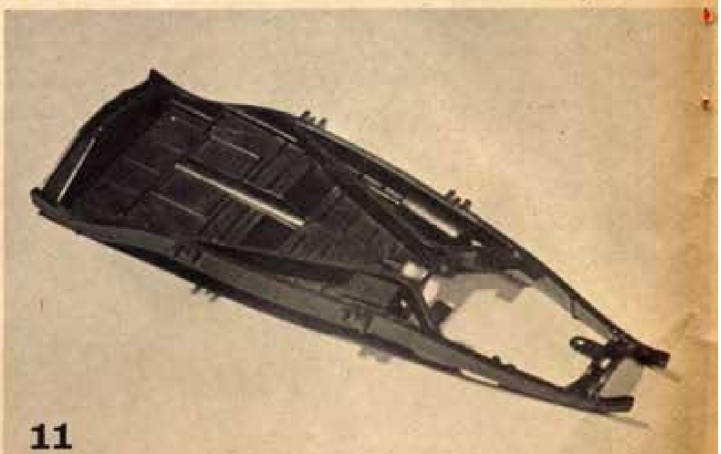
Cut scrap plastic to fill in front and rear wheel cut-outs. Fit the nose section from a Monogram Midget Racer kit in place and fill all cracks with body putty. As always, sand smooth.

Smooth the entire body with #400 wet-or-dry sandpaper. Apply primer coat and when dry sand again, using sanding blocks and lots of water.

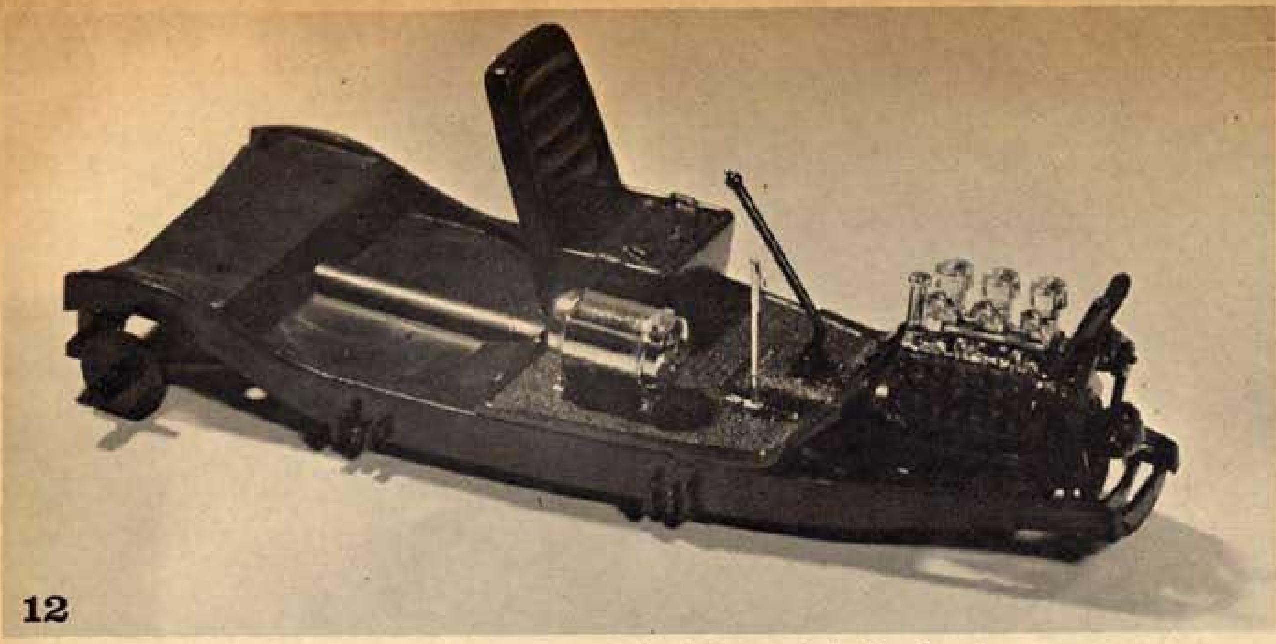

9


10

Cut off the rear portion of the frame just behind the rear spring support. Also remove the front bumper brackets and tank supports. Cut off and save the front axle supports.

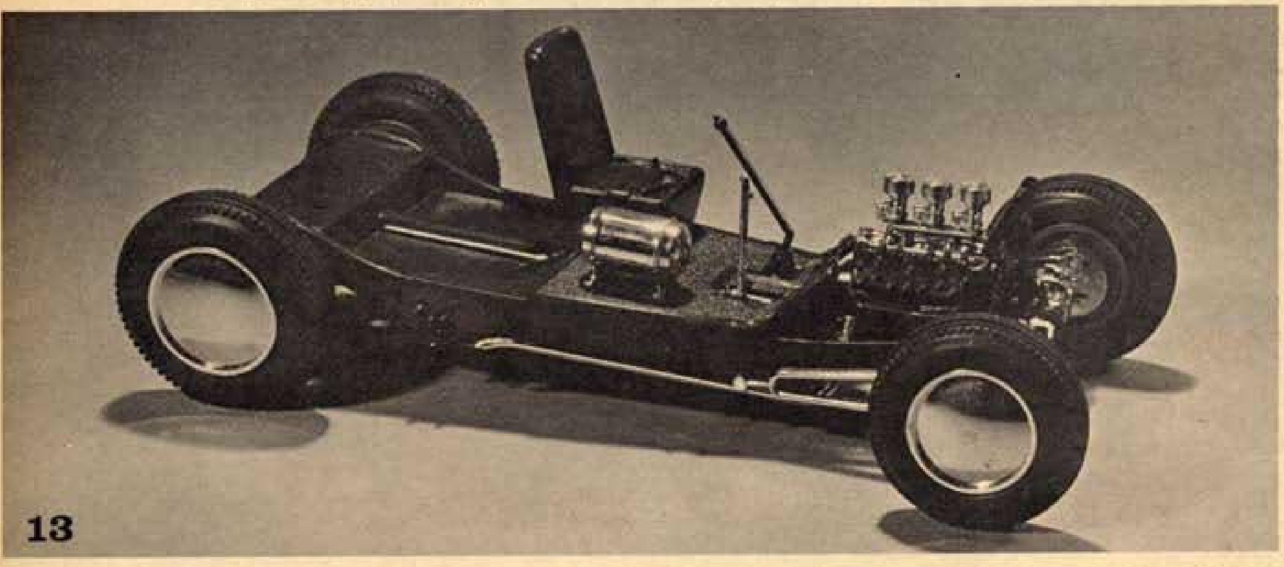

11

Now cut off approximately 1/16 of an inch from each end of the front axle support. Cement it back into position. This process results in a narrowing of the front end of frame.



12

Attach tubular front axle, radius rods, drag link, tie rod, wheels and engine exhausts (above). Rear wheels and tires and four wheel covers are from Black Widow kit. After painting add door handles and grille from Midget Racer kit.



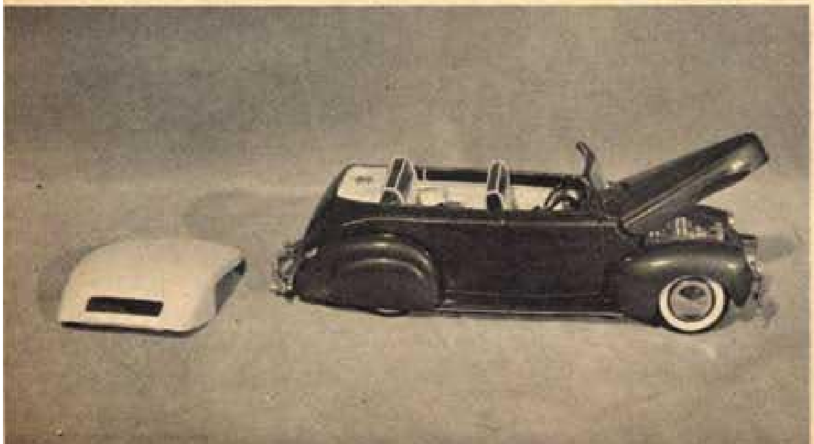
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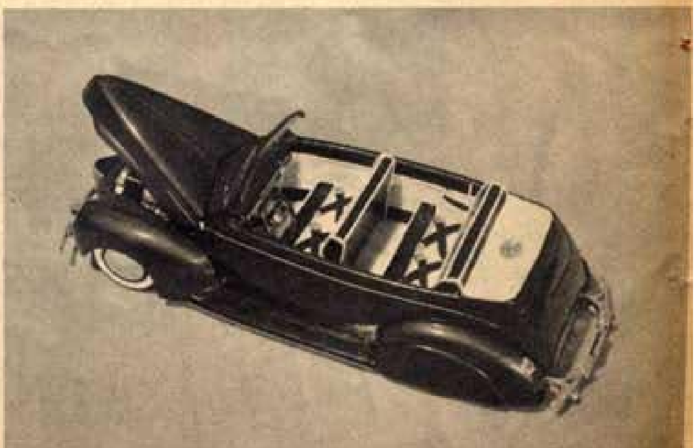


3 WILD ORIGINALS

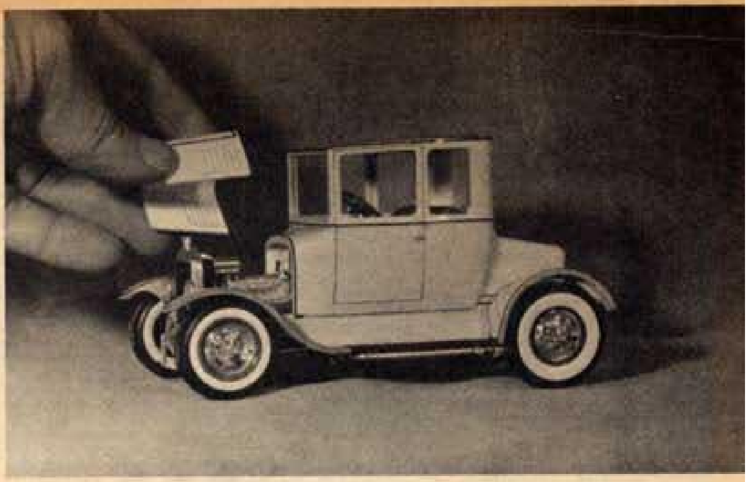
Close-ups of our cover cars . . . the work of master builder Joe Brenner

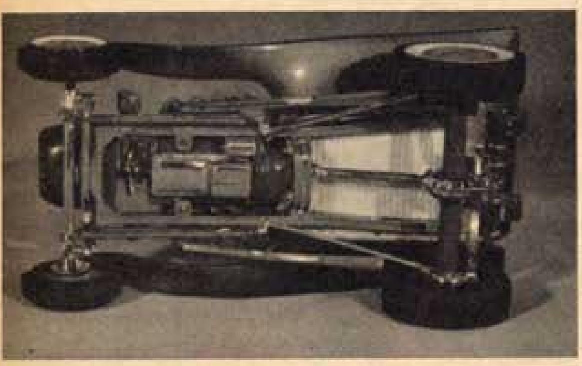
Fresh off our cover come three of the greatest custom built models ever made. Their builder, Joe Brenner of Burbank, California, is one of the top creative modellers in the country. Winner of the model sweepstakes at last year's big Winternationals of the NHRA, Brenner is a careful craftsman who claims that time is one of his important tools. Joe never hurries to finish any one car. He always has a number in the works. When he turns to one, he has a new and specific idea to add to it. It may take him a year to finish a particular model, but, when it is ready, every detail is just right.

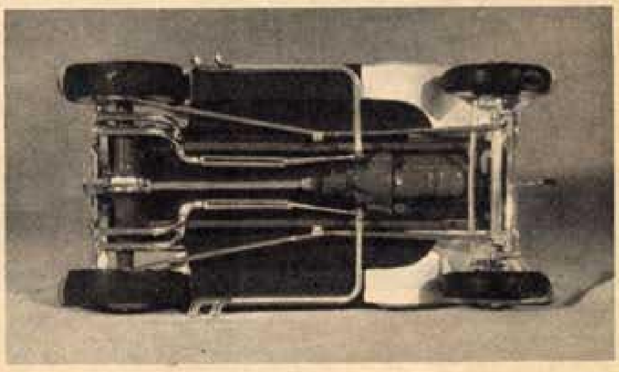


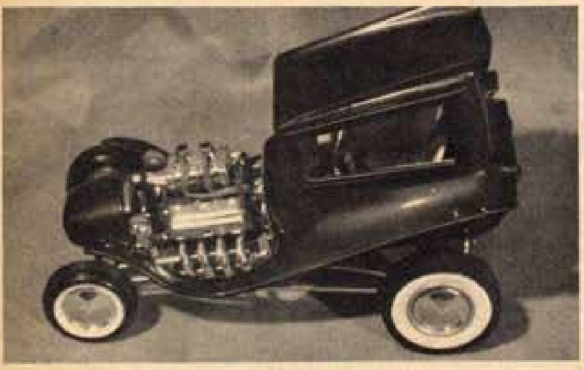




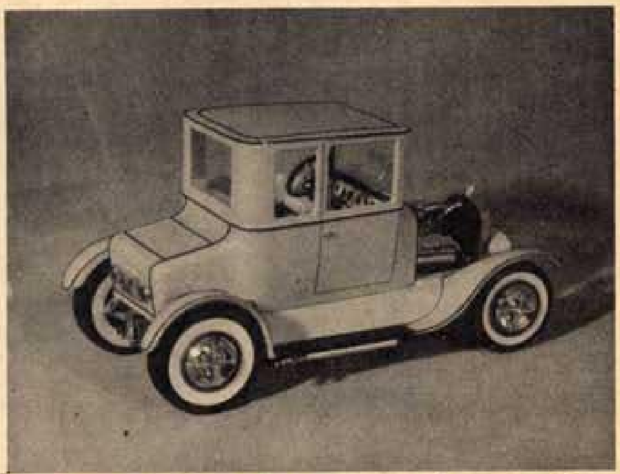




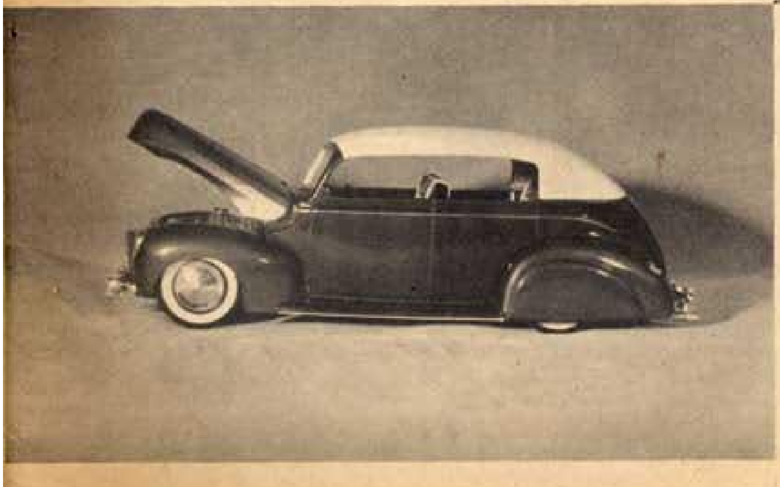




Newest car of this trio, the unique "Mysterie" is an extreme custom that could take trophies no matter what its size. Note careful undercarriage detailing and the use of common pin-heads for the very effective grille area.

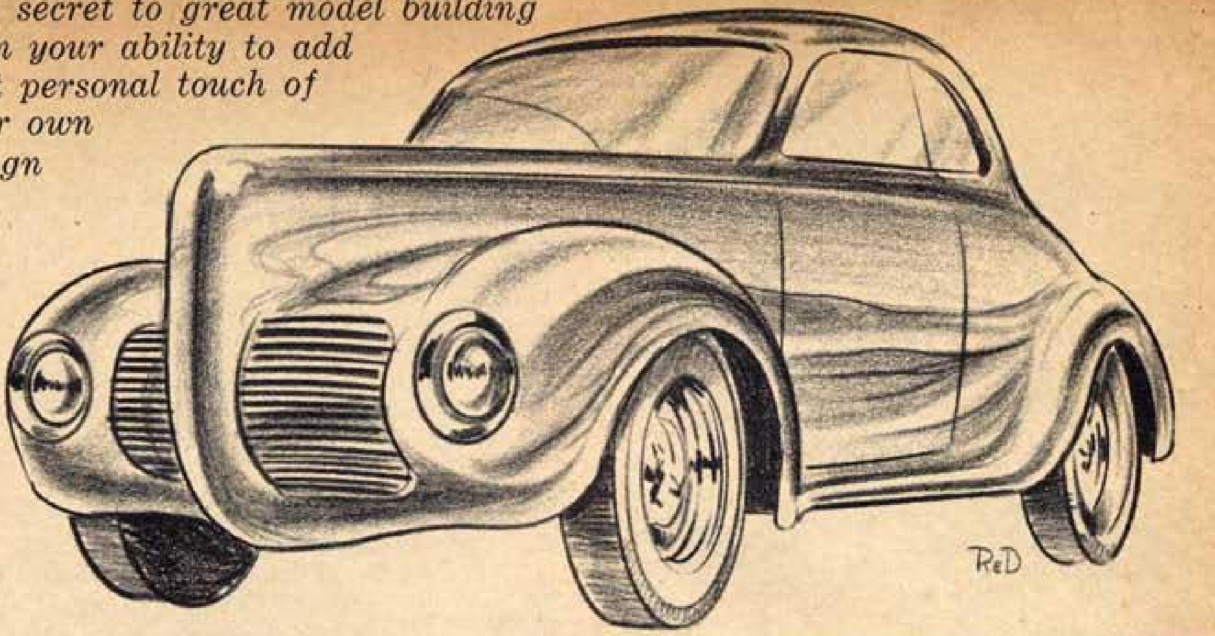


Bright yellow Ford Model "T" coupe has removable hood over its potent looking engine. Nothing is impractically wild due to carefully planned exhaust.



Brenner's version of the '40 Ford is a smooth custom without any gaudy frills. Nearly stock, the car wins big prizes on the outstanding quality of construction.

The secret to great model building is in your ability to add that personal touch of your own design



CUSTOMIZE

ROBERT E. DAVIDS

THE building of model cars has rapidly become one of the most active hobbies in the world – and, what's more, it's growing every day.

There are many, many reasons for this. One of them is the fact that many boys and men love cars. And creating them in model form is one way to assemble a fine collection of cars of all types – production cars, custom cars and hot rods – without spending a million dollars, or some other equally impossible sum – in testing these ideas in full-scale machinery.

There now are so many different model kits on the market that anyone can find just about any make, model, body style or type. And if you as yet have not put together any kits, and you have the urge to do so, it's suggested that you start with some stocker or kit containing factory customizing parts preformed to fit well.

This will allow you to become more familiar with the materials and tools needed. And, in addition, the projects will familiarize you with how to use them.

For those enthusiasts who already have built and detailed many model cars, there may be some questions as to how to go further in customizing. This stage of design may often be a difficult one – it may stump you but it should not stop you. Customizing simply is the art of individualizing, and each individual has his own preferences, his own likes and dislikes about every car. This is what makes a custom out of a stocker and gives the builder so much pride in the accomplishment. It is sure to be different and, to the builder, then will not look like any of a hundred or thousand other cars on the road.

Many model car builders have found that by creating a model in custom form of his own full-size car, he can experiment with various treatments, shapes and restyling ideas before proceeding to work on his own street machine.

There are many benefits to be obtained from the science of building model cars. It is a real education in patience, as well as in craftsmanship. These are two qualities it is well to develop and which can be later applied in many forms to other kinds of work and study.

Now, how do you customize? First of all, start with the production cars. Whatever makes or models you already admire – Pontiacs, Chevys, Fords, and so on. You should give this careful thought. Perhaps even make a list. Then go down the list and decide what it is you like most about each car. You'll find yourself thinking in terms of side treatments, tops, front ends, rear ends, taillights, interiors. You'll go right down the line. And as you study the various possibilities, try to imagine how various shapes, taillights, headlight treatments might look on other cars. Many times just taking the top from one car and fixing it on another, along with completely cleaning up the nose, deck and removing door handles and other little chrome ornaments that the factory attached – all this will often produce quite a radical change.

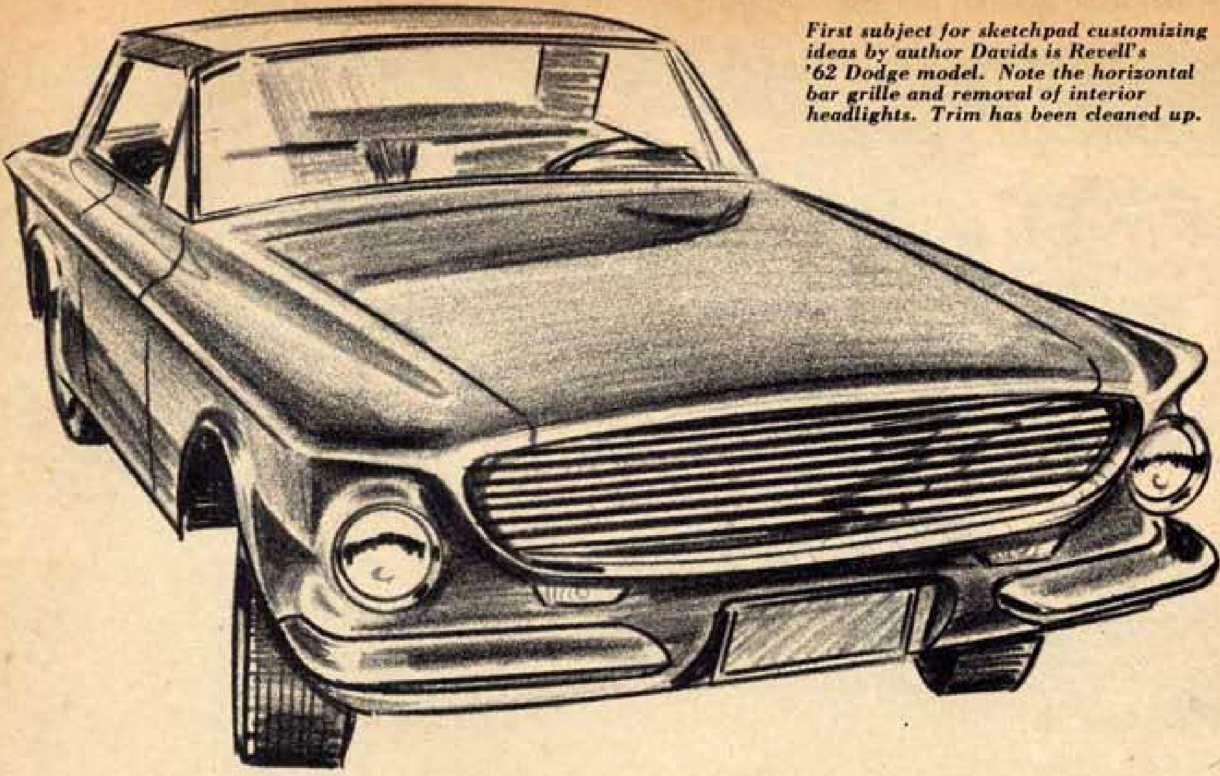
The usual first steps, however, are the front and rear ends. Nothing can give a car a more apparent change so easily as altering the grille. The grille of an automobile does much to establish its personality, or at least the initial visual impression.

The custom tube grille is the big thing, along with many of the wild textures that can be made up from metal stampings and castings. Most such textures can be found in hardware stores and lumber yards where building supplies are available.

This is just one example of how you can proceed. There are hundreds of other little goodies that can be utilized or reworked for custom parts. They can usually be found just by looking.

Regular custom parts for models are more abundant, too. Revell's Custom Parts Shop has many good items. AMT's various kits are a source of many more. And just about all the other companies that make model cars now have some custom parts available.

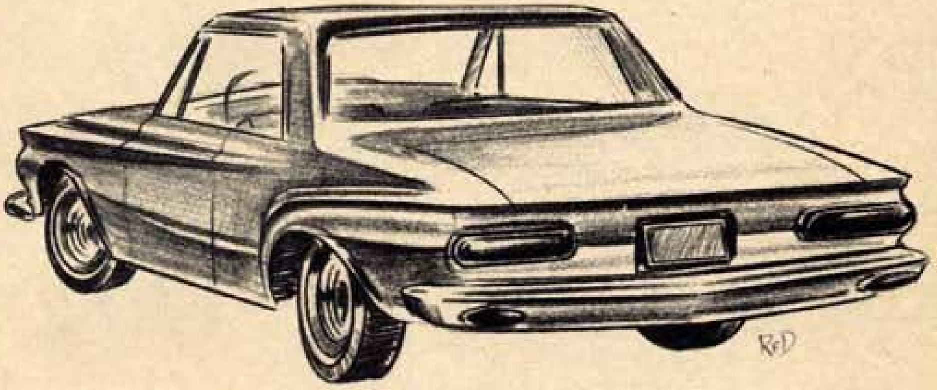
One other very important area is the

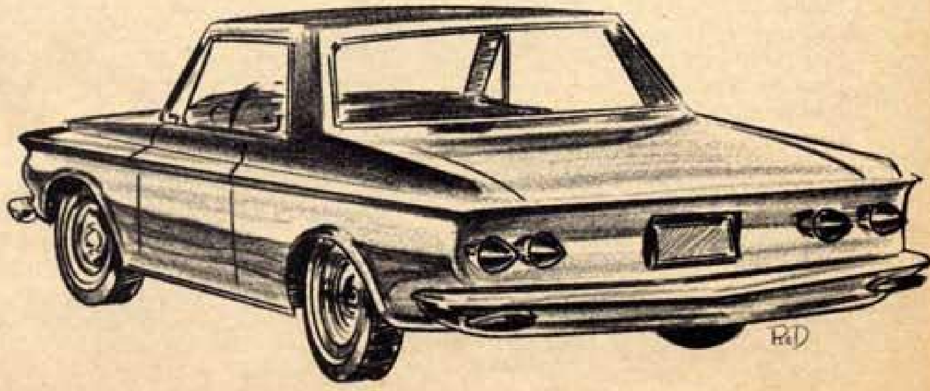


First subject for sketchpad customizing ideas by author Davids is Revell's '62 Dodge model. Note the horizontal bar grille and removal of interior headlights. Trim has been cleaned up.

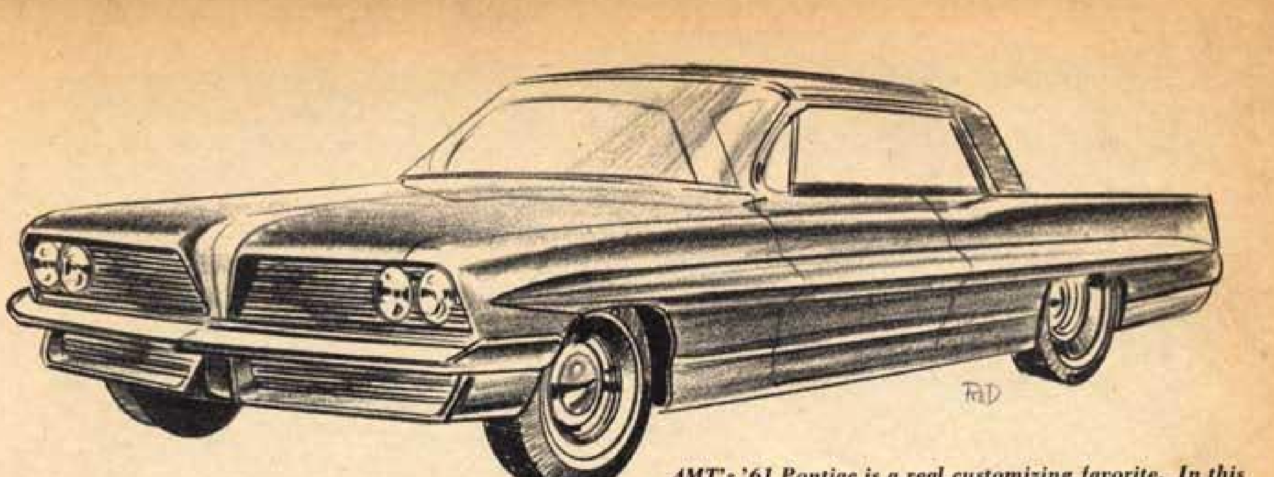
building by hand of parts specially suited to your own particular project. Some parts often only can be made by hand in order to obtain the exact shape or item needed. When you do this, then your model is almost assured of ranking as tops. For in model contests, it is the special touches and added features that often count most. They bring the extra points. This is the finishing touch that makes a real winner. An extra few minutes, or an hour, on a model can mean the difference. So always take very good care with each step and do it the very best you can. Then if you are out to win a contest, you'll be a top runner.

There's nothing better than some very specific and practical examples of what can be accomplished in customizing model cars. On the following pages we are giving a selection of very carefully arranged ideas that are recommended for study. Look them over. You'll find them especially worth while.



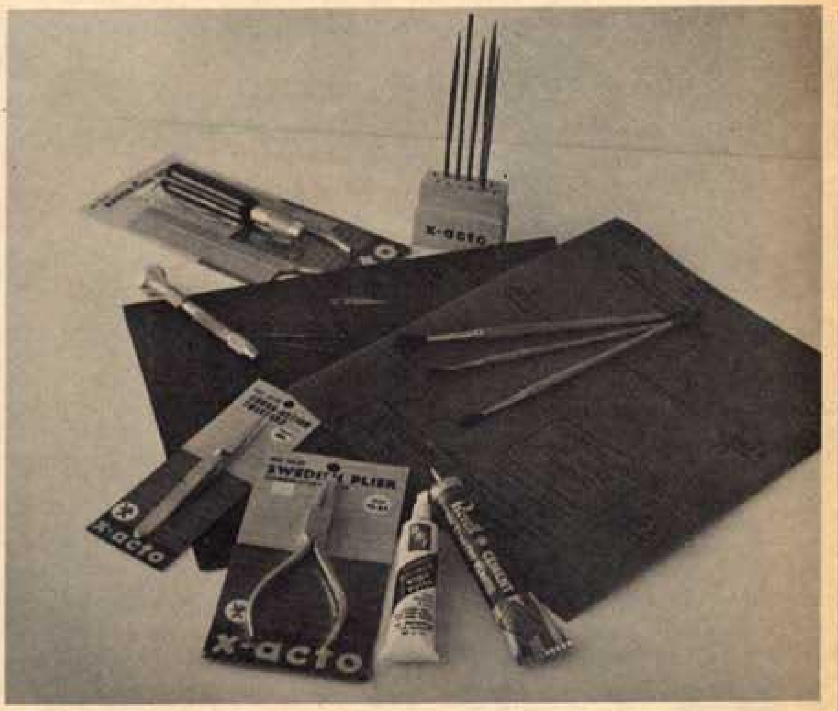


Two variations on rear treatments for the same Dodge kit. Taillights above are from '61 Pontiac while those below are from Revell Custom Car Parts rack. There is new side treatment below with front and rear fender lines joined.



AMT's '61 Pontiac is a real customizing favorite. In this version grille is made from small gauge wire. Below bumper another hood has been added (inverted) as a pan.

WORKING WITH PLASTIC



Most of the model car kits that are currently available are made of styrene plastic. This material is utilized by AMT, Revell, Monogram, Jo Han, Lindberg, Strombecker, Aurora and Hawk, as well as others. Obviously, this means that the materials you work with must be those intended for use with styrene plastic. This is important. Keep it in mind.

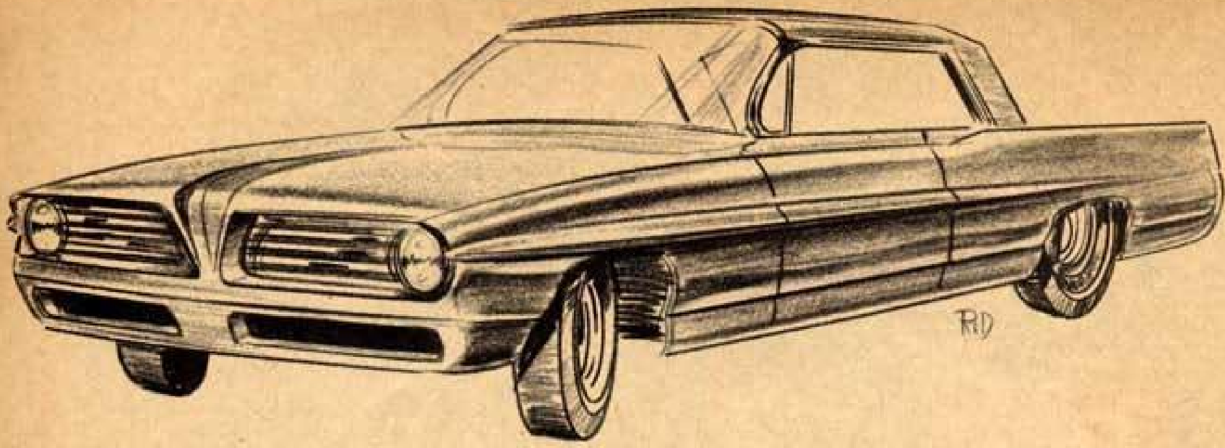
In the glue department we find a variety of products offered by various model manufacturers. Revell has what it calls Type "S" (styrene) Cement. AMT's cement is also good. Monogram has a similar type of glue. Testors supplies a tube cement specially made for styrene and a liquid for styrene. In all cases, the glues are good but the liquid cements are most satisfactory when used correctly.

This is done by following some basic rules. First, only apply the cement to the exact area to be bonded and do not use too much — an excess amount just softens the area to a greater depth and takes longer to dry. Too much will often mush loose or even change the shape of the parts on which it is applied. Another good hint is to work with a small pointed brush.

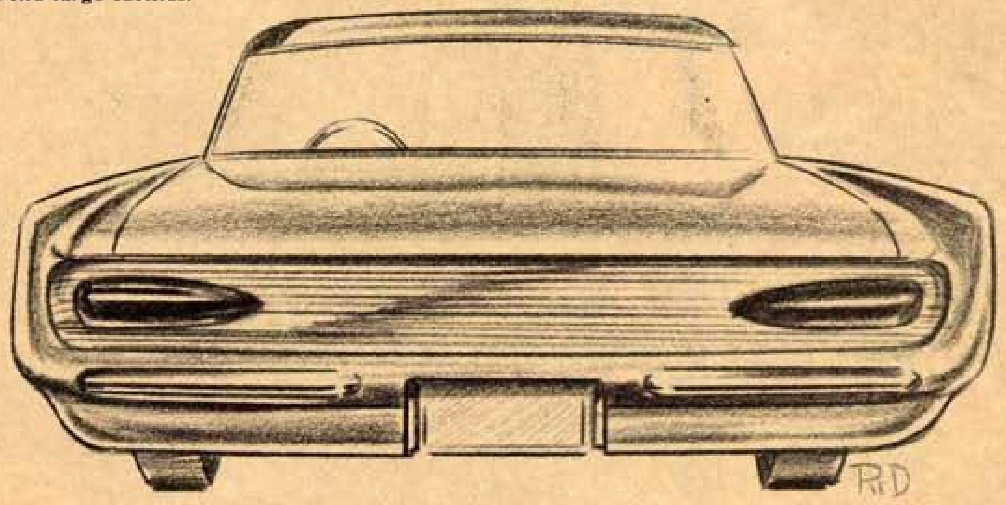
Another very important ingredient is putty. Examples here are AMT's body putty and Duritite Surfacing putty. Follow the instructions on each type. It is especially important to rough slightly the area to be filled. Use 400A sandpaper before applying the putty, which will encourage superior adhesion to the plastic. When you use the putty, it is smart to apply several thin coats, letting each coat dry before applying the next one. As a matter of fact, this will cause the putty to dry faster than if the entire area would be filled heavily. It is a good idea to wet sand the puttied areas with 400 A or 500 A paper and water.

Painting is a last step in model building and one of the most critical. It is good to know that paint will not cover, disguise or hide imperfections completely! Be sure that all areas are well finished. It is only human to be eager to see what the car will look like when it is painted. But exercise a little restraint. Take a really good look at the model just before painting. Make sure it is right. Then go ahead.

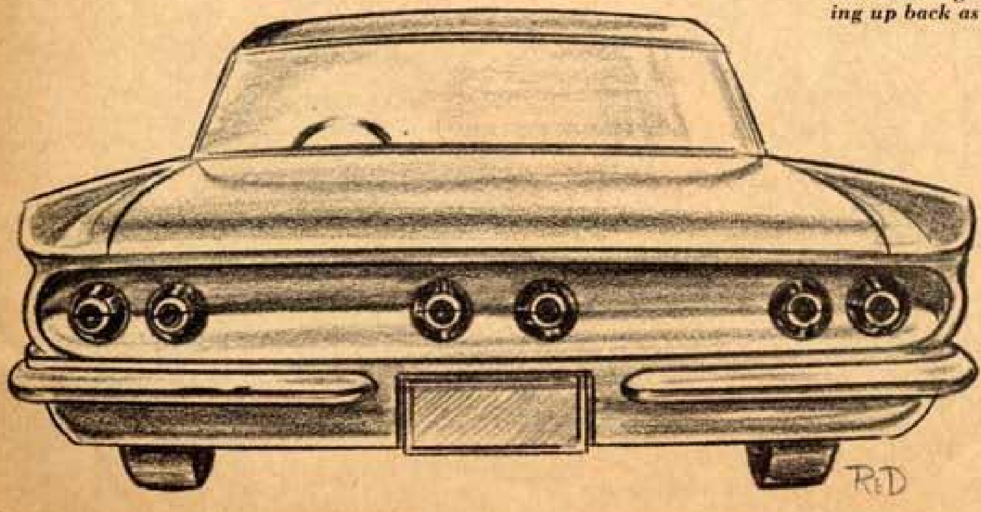
Of the paints available, we again find a good variety. Pactra makes a good one and the advent of the spray can paints for plastics was a big boost. AMT has a fine selection of the candy colors. Testors spray enamel is one of the best. Lacquer sometimes is used by experienced model builders and is made to work satisfactorily.

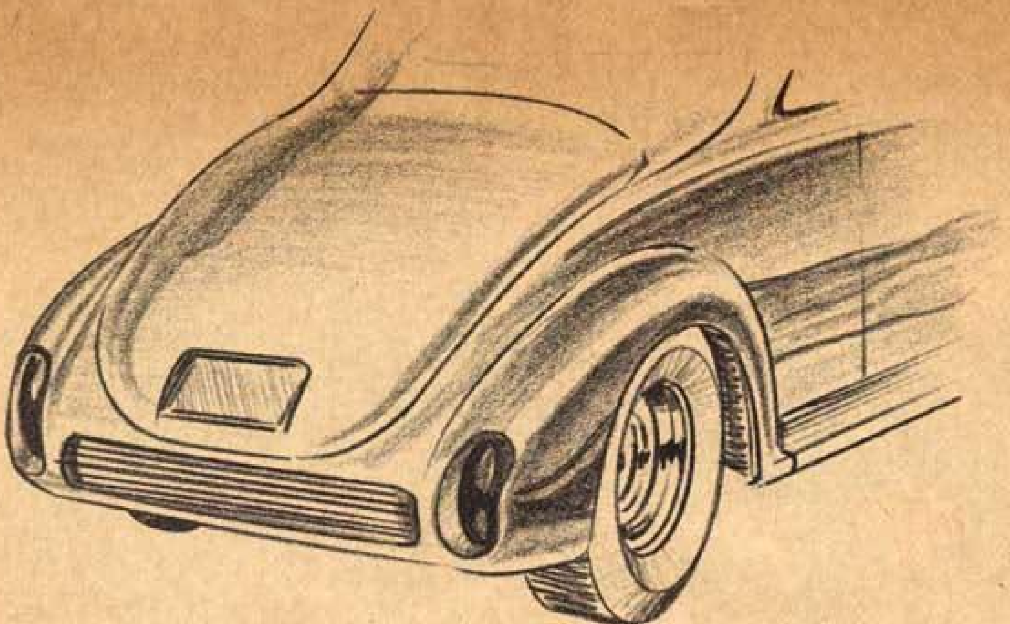


Another approach to the Pontiac sees the use of a larger bar grille. Single headlights are highlighted by the use of a new fender line. Note the big pan underneath with two large cavities.

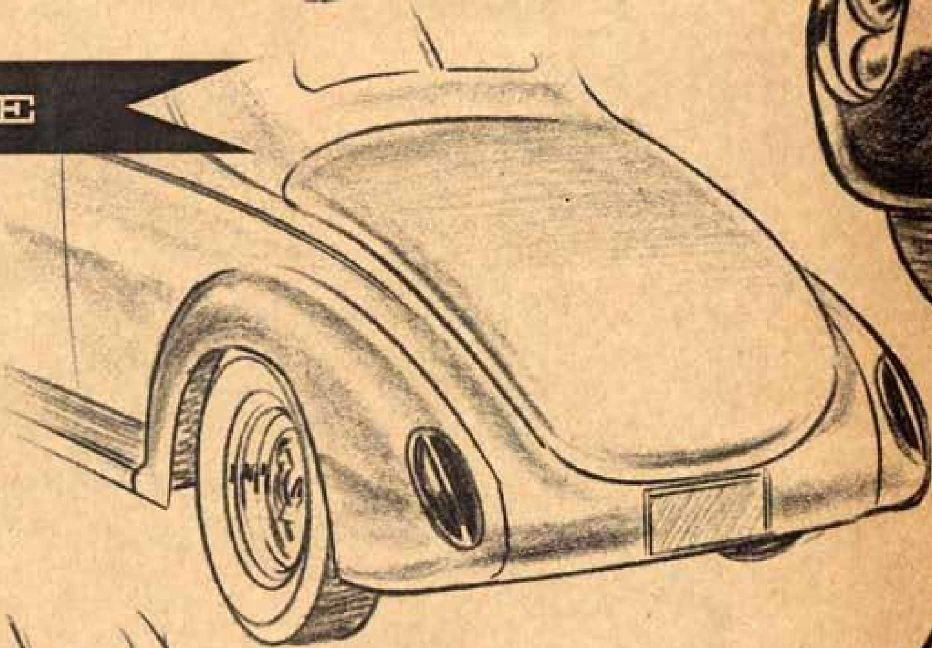


Rear end treatments offer unlimited possibilities. These two Pontiac drawings show how you can make a great change by playing up back as a grille or cavity.



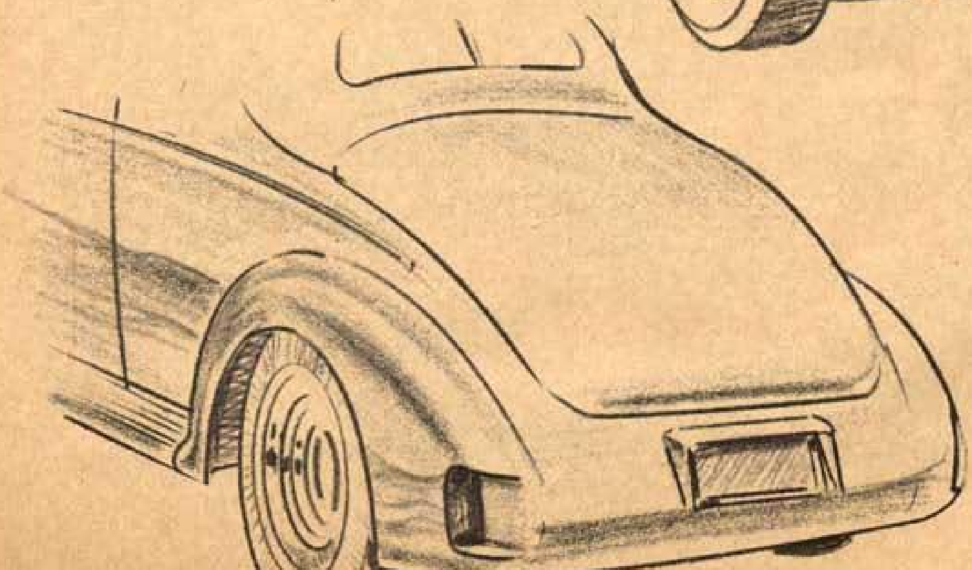


CUSTOMIZE

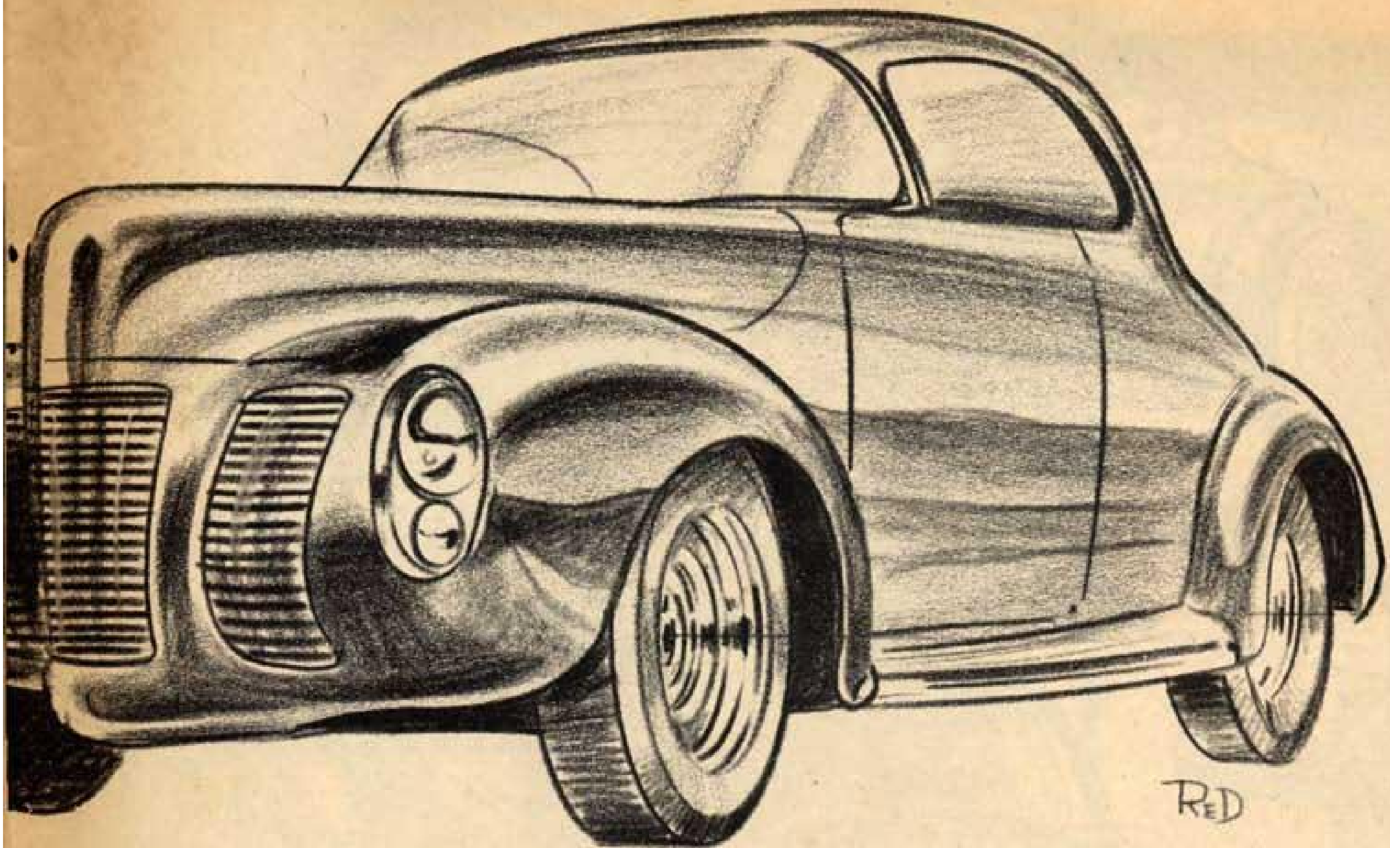


One of the all-time favorites with hot rodders and customizers is the '40 Ford coupe. AMT's kit is the basis for any number of changes. In these three rear end treatments, you can see how relatively minor changes can alter car's whole personality.

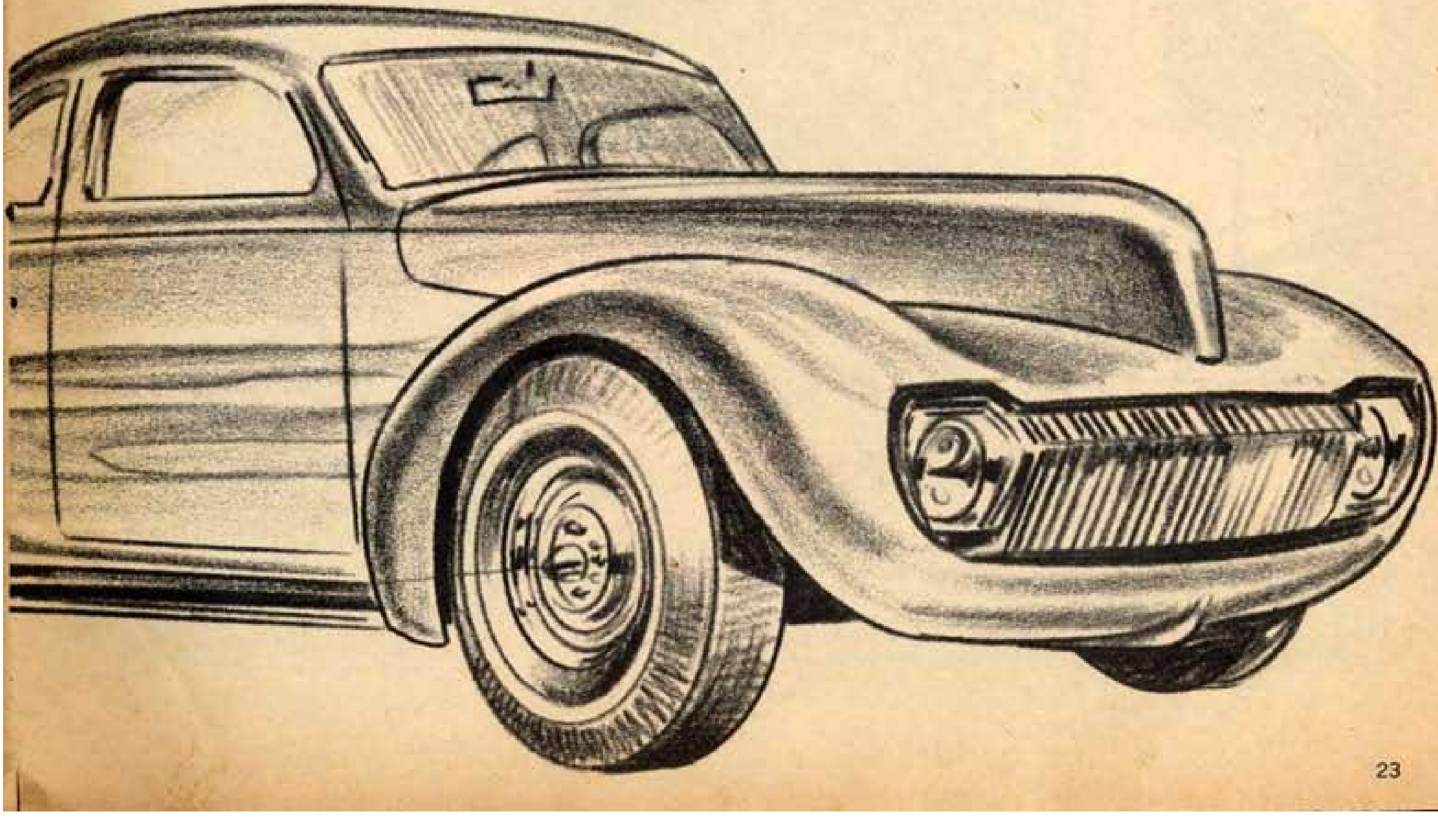




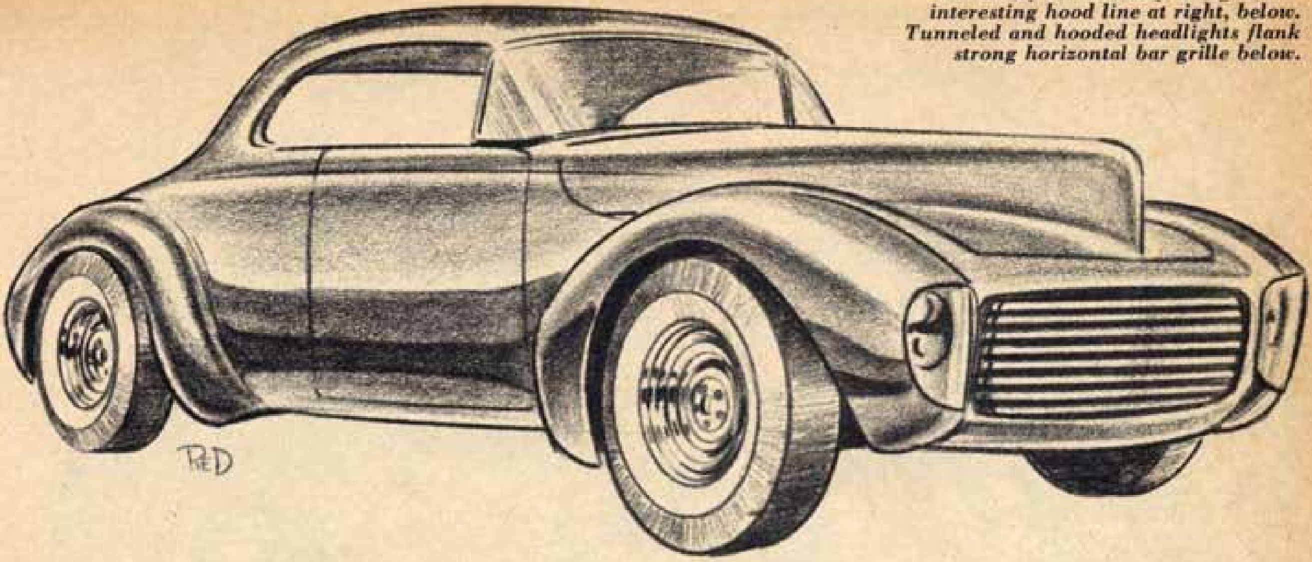


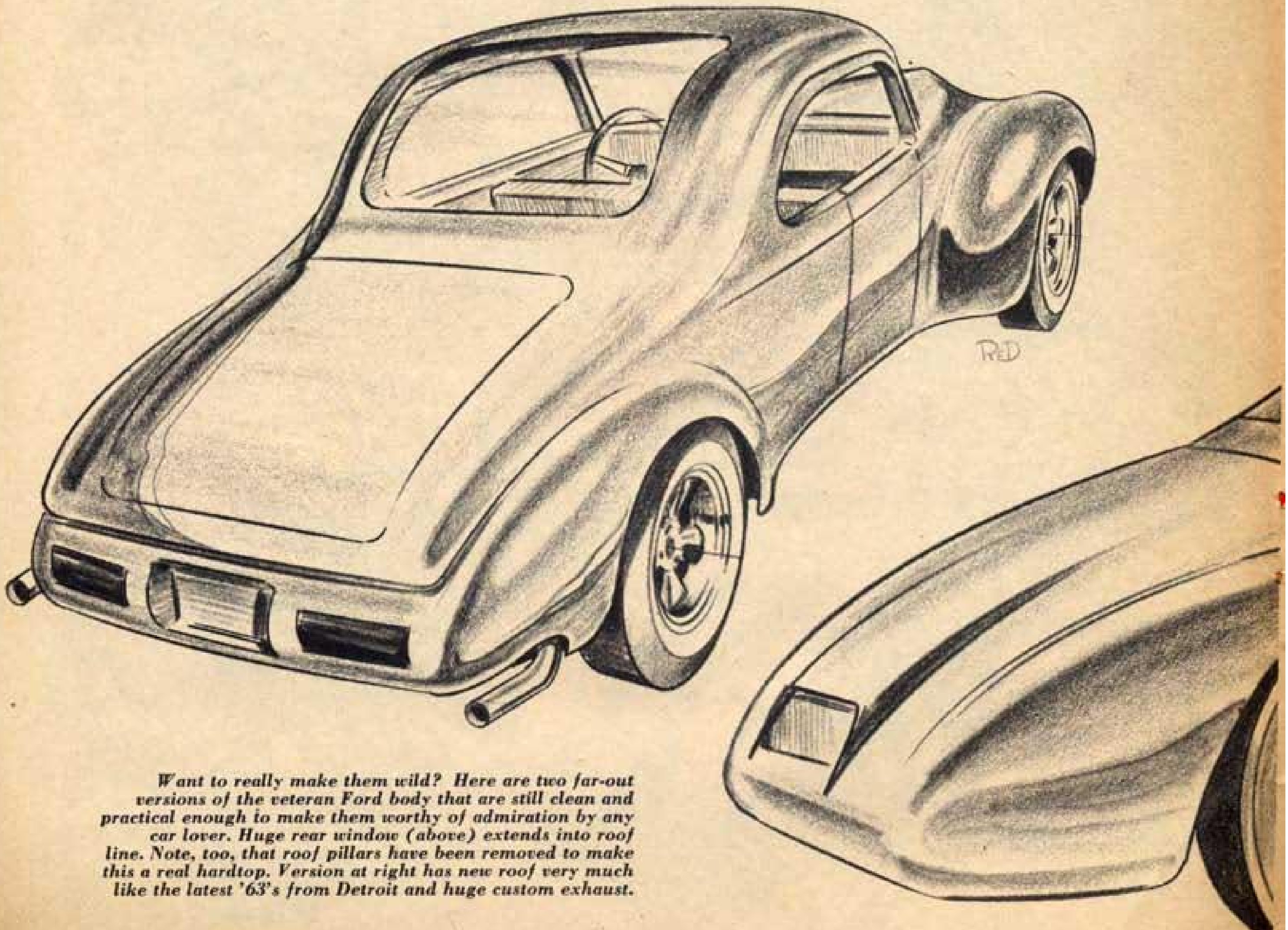


Headlights and grille offer two big areas for the customizer to do his stuff. Unique cavity containing different size lamps (above) adds lighting distinction. Grille similar to '62 Dodge does even more (below).

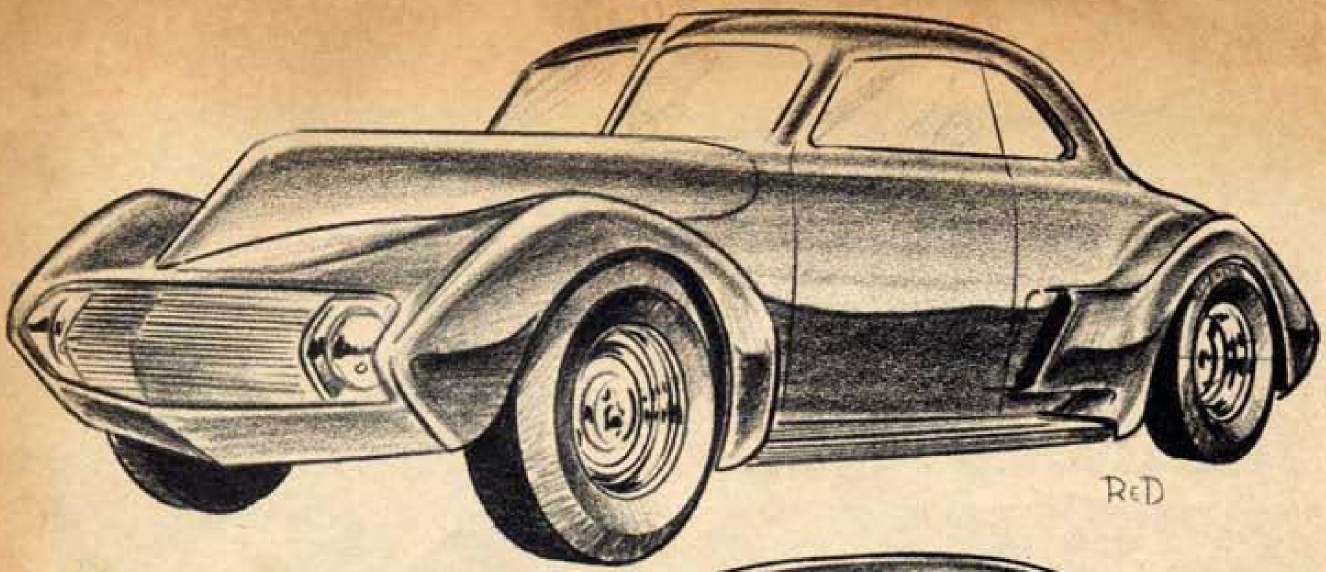


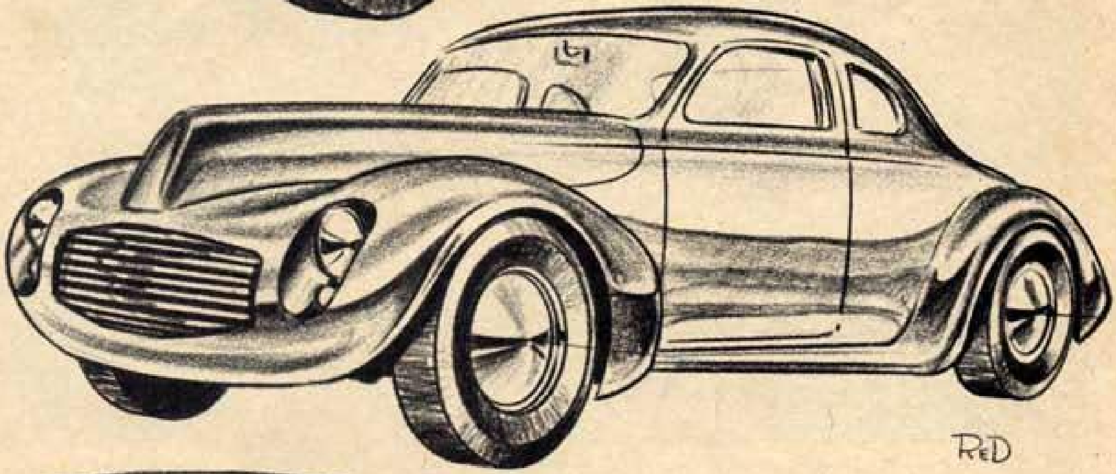
You can never exhaust the possibilities for altering the personality of a good basic body. Notice the crisp lines and the use of a rear scoop at right; the interesting hood line at right, below. Tunneled and hooded headlights flank strong horizontal bar grille below.

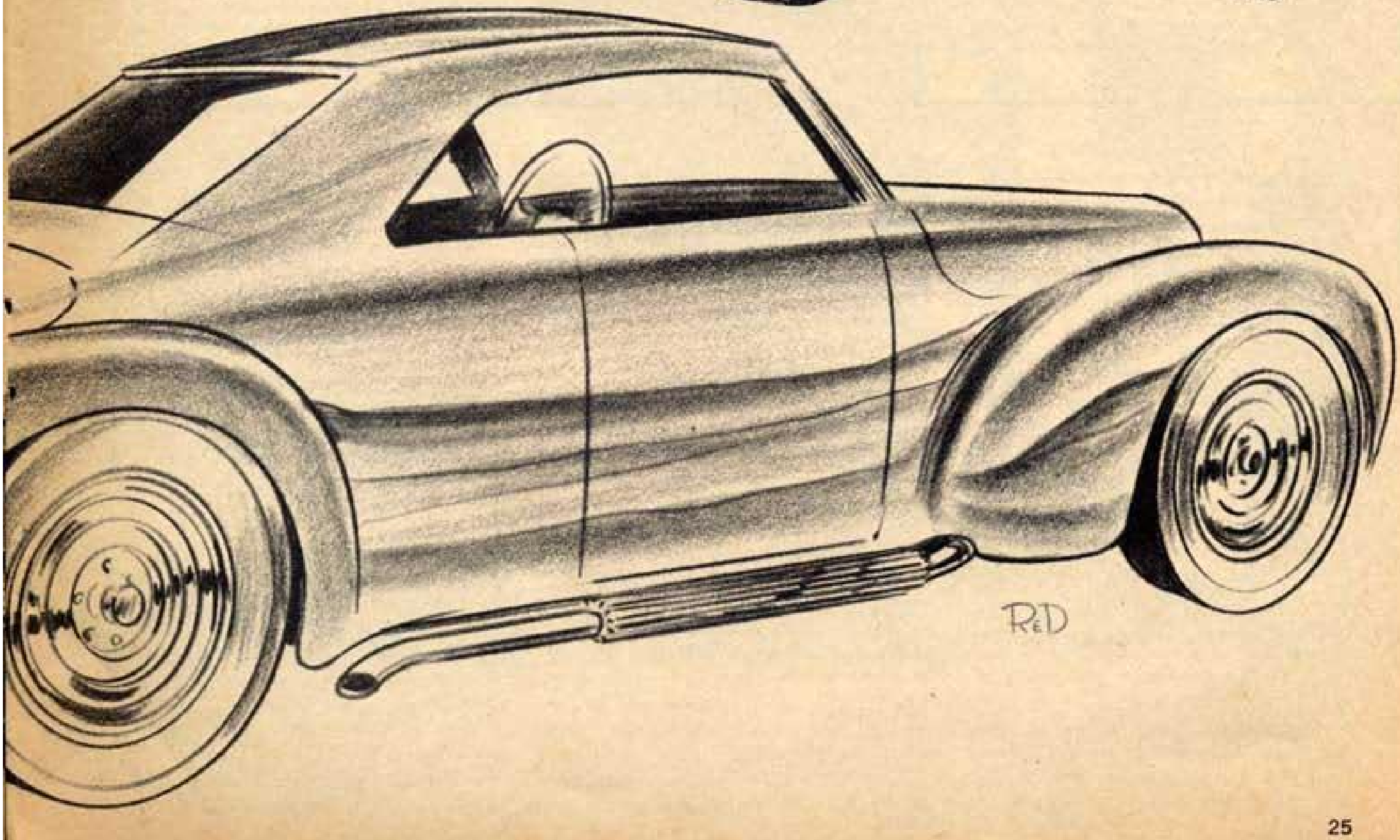


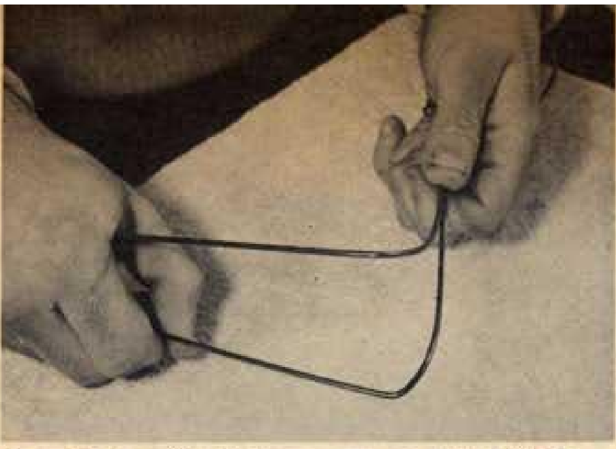


Want to really make them wild? Here are two far-out versions of the veteran Ford body that are still clean and practical enough to make them worthy of admiration by any car lover. Huge rear window (above) extends into roof line. Note, too, that roof pillars have been removed to make this a real hardtop. Version at right has new roof very much like the latest '63's from Detroit and huge custom exhaust.


RED


RED


RED

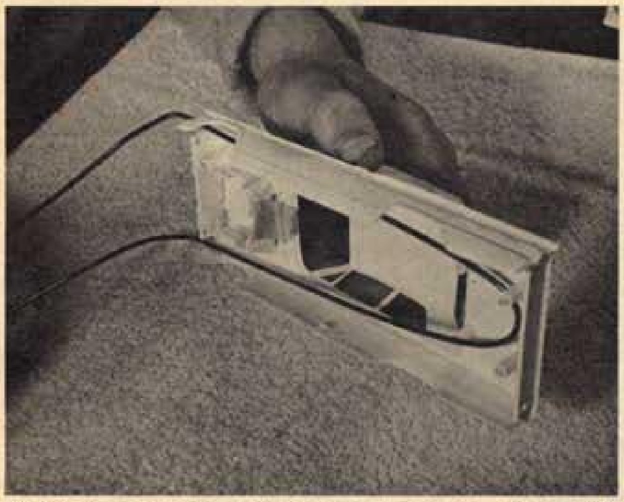


Preparing to paint with lacquer, you can make a simple stand for the job by bending an ordinary coat hanger. Another preparatory job is to sand the car with fine paper.

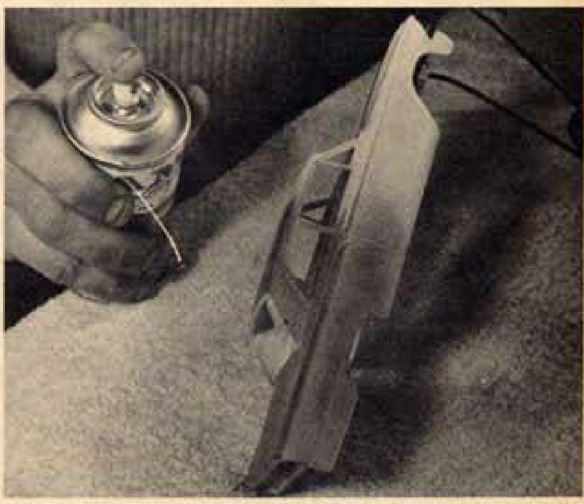
PAINT like the PROS

....with lacquer or enamel

LACQUER by George Barris



You make the car hook right onto its new rack. It is ready to begin the lacquer process. This paint dries faster than enamel, has a high gloss and features true translucence.



Prime the entire car with AMT's primer. Famous customizer George Barris points out that the steps you follow are exactly the same as those in painting a full-size car.

ENAMEL

ASK the fellow whose models win trophies and he'll tell you that nothing beats the sense of satisfaction derived from a perfectly finished product, assembled correctly, painted correctly — a gleaming little gem of a car rivalling the beauty of any smooth job out there in the garage. In spray painting a model car — as with every skill or sport — there's a right way. This may be more time consuming perhaps, demanding greater care and the proper quality paints and materials but it's the only way that produces an end result equal to the time and effort expended. This article endeavors to present the techniques and professional tips on spray painting with enamel to help you achieve the goal every modeller wants.

Materials

1. Soft Spray Paints in the colors of your choice. Two-tone cars are very popular, with interiors matching or complementing one of the exterior colors. Your personal taste is your only limitation. One leading paint manufacturer, Pactra Chemical Company, makes Soft Spray 'Namel in regular, metallic, candy, and pearlustre finishes in every color imaginable. Remember, candies require gold or silver undercoater.

2. Masking Tape — for the more experienced modeller who paints his car after assembly. When painting the body, for instance, he masks off the top.

3. A spray booth and turntable are optional, but recommended. The spray booth which can be made from a corrugated box prevents paint from spattering surrounding objects. The turntable prevents fingermarking freshly painted areas. To make this, cut a piece of paper board in a circle and fasten to bottom of a coffee can with glue.

4. Aero Gloss Rubbing Compound is recommended for use between coats and after the finish coat. This is an ultra-fine abrasive which removes any foreign matter (hair, dust) which may have dried into the paint.

5. 400-600 grit sandpaper (very fine grade) to sand off possible overspray.

Preparation

1. Spray painting is best done at room temperature — 70-80°.

2. Select a well ventilated, dust-free area.

3. The surface you are to paint should be clean and dry.

4. Decide on the colors for various car parts. Then group together parts that are to be painted the same color.

5. Open up all holes in the plastic parts and remove flash from edges.

6. Secure parts to a piece of cardboard with masking tape.

Painting

1. Shake paint spray can a full minute before beginning to paint.

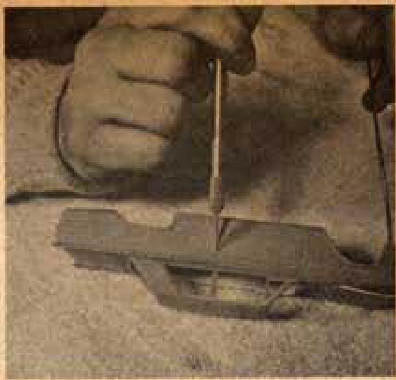
2. Spray approximately 10 inches away from the article. Spray motion should be back and forth, not up and down. Each pass of the spray should start ahead of the object and continue beyond it. The secret of achieving a professional finish is to work steadily and evenly, keeping the spray cone always in motion. Do not spray in bursts



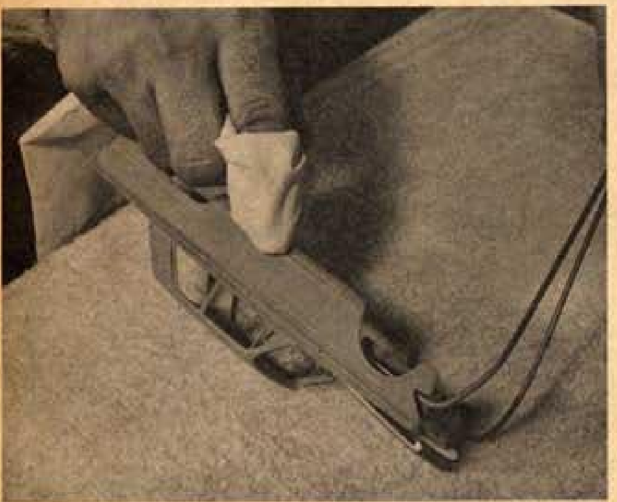
Although lacquer dries extremely fast (15 to 30 minutes) you can speed the process with the use of light bulb.



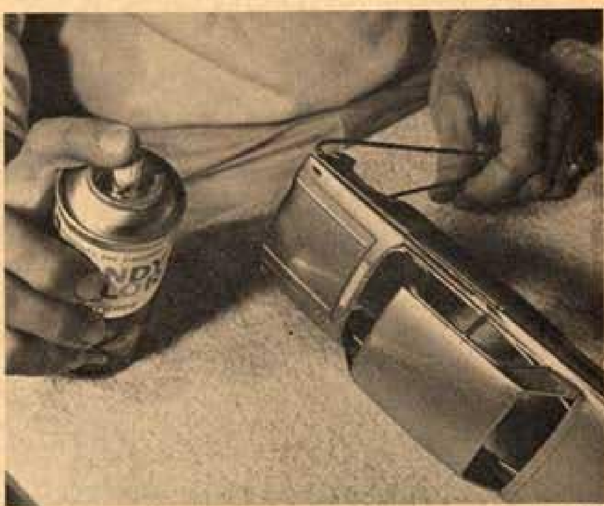
After the prime is dry, sand it down so that the surface will be ready to take on the gloss of the lacquer.



You want to keep all of the details on the body surface. Use your knife to clean out the prime from all cracks.



Give the prime a final rub-down with cloth. Now apply the lacquer. For Kandy Kolors (the real thing with AMT) put down a base coat of gold, followed by several coats of tone.



In applying the coats of lacquer, don't aim for the desired color with the first application. Do many light coats; build up to the color you want without loading on paint.

or hesitate between passes. Keep the spray nozzle all the way down. It's a good idea to practice on a piece of scrap to get the feel of the motion, and see the effect.

3. The first coat should be *very light*. Don't be concerned if it appears faint. A number of light applications gives a richer finish than one heavily applied coat. Spraying too heavily results in streaks and runs. Pactra's "soft spray" action is especially suitable for this reason. Your colors are misted on, giving the smooth desirable result.

4. Wait 20-30 minutes between coats.

Special Tips for those Special Candy Colors

They look good enough to eat, but they do require some special — though not difficult — handling.

1. These are translucent colors and must be applied over a gold or silver undercoater.

2. First coat will show up weak and uneven, but color will even up as other coats are misted on. A build-up of two or more coats is essential.

3. Finish coat should be sprayed on very close so it almost flows on.

Finishing Touches

After finish coat is dry, apply rubbing compound to remove any rough spots. Then, if desired, apply a coat of wax for that extra shiny finish — and added protection.

To illustrate the effect this little bit of extra effort has — one user of Pactra's Aero Gloss Wax reported to the company that his model happened to be left outdoors during a hurricane in New England and when the model was found several months later, it was completely intact and looking as if it had just come out of the paint shop!

Spray Painting AFTER Assembly?

Though most beginners paint before assembling the model, many proficient modellers prefer it the other way round. They say only in this way are parts of the same color *exactly* matching. If you use this method, sand off any excess glue and remember to mask off areas of

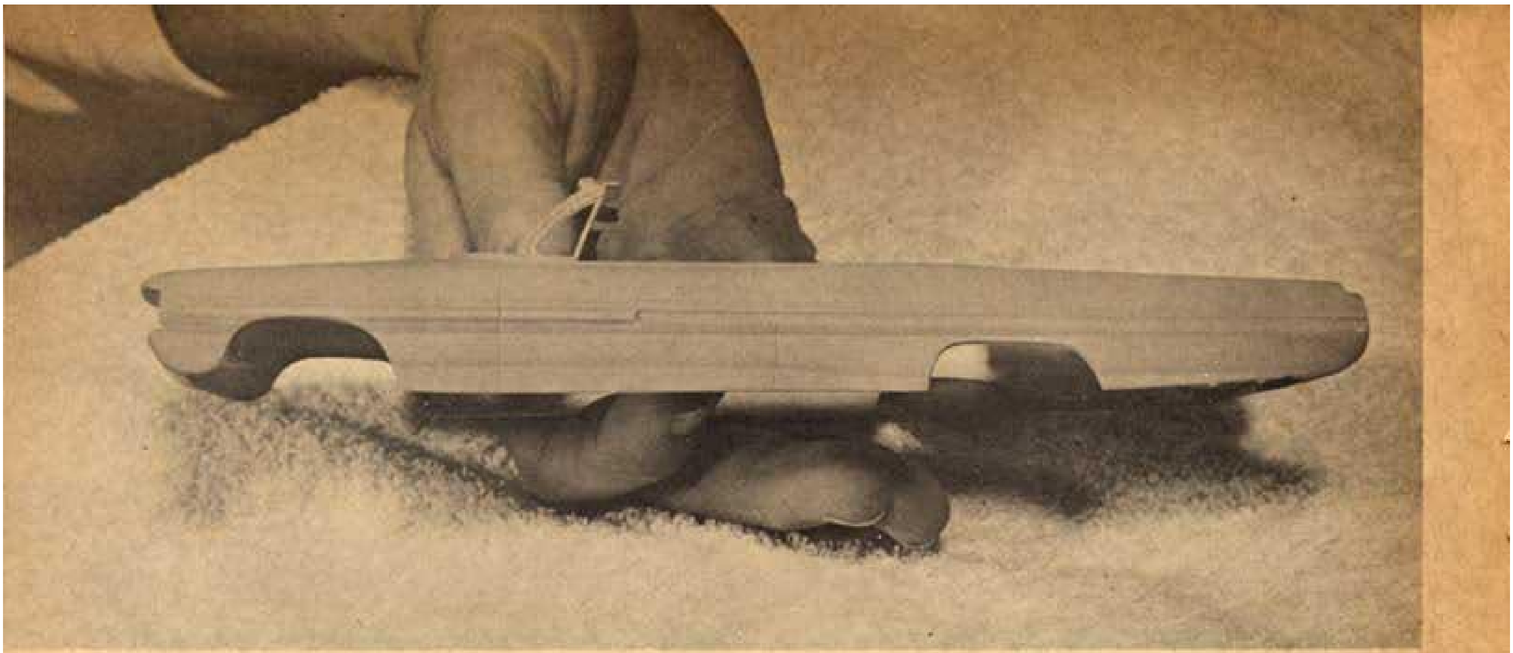


In painting with enamel, you can build a simple spray booth with a cardboard box. Small turntable is also a necessary accessory.

contrasting color. Never use masking tape on candy colors, as the undercoater has a sticky consistency which will adhere to the tape and peel off with it.

After Painting

Always clear the spray nozzle by inverting the can and spraying for a few seconds. If on re-use the nozzle is clogged, lift it off and clean by inserting a pin in the spray hole and running your fingernail through the slot in the spray tube.





Decide upon the amount of side panel that you want to remove. Measure the amount exactly from bottom of body.

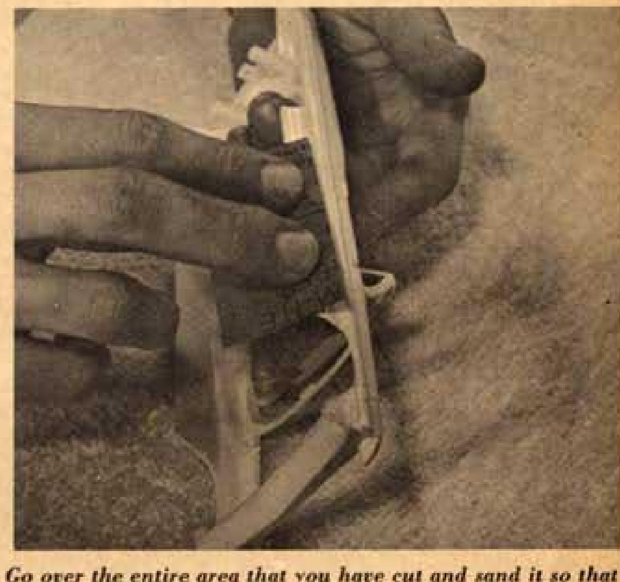
BY GEORGE BARRIS

SECTIONING the '62 Pontiac

AMT's custom styling consultant shows how to make a stock car look sleek by lowering its profile



Saw slowly and evenly with a jeweler's saw. If you have trouble following the line, use masking tape as a guide.



Go over the entire area that you have cut and sand it so that you have a clean and even surface. Sand out saw slips.

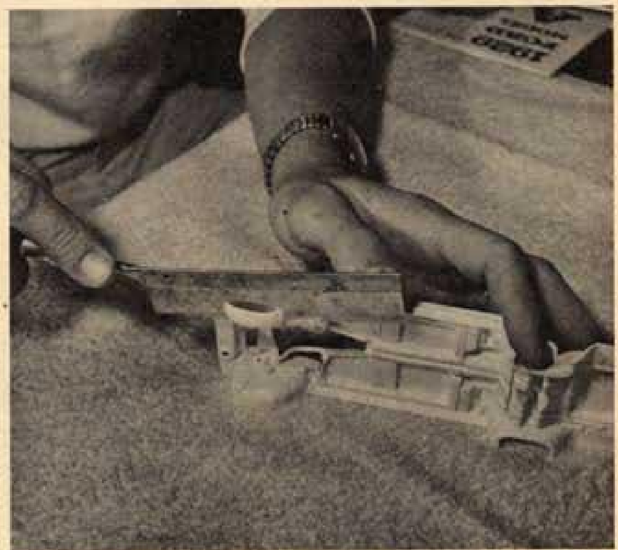
When it comes time for the radical restyling of a body shell, the full-size customizers have one major procedure that always accounts for sleek lines. This process, called "sectioning," is the actual removal of an entire area of the body panels. No man is more familiar with sectioning than George Barris, the famous king of the customizers. Now, as AMT's styling consultant, Barris offers his knowledge of auto restyling to today's modellers. On these pages he shows you how to turn this great styling trick with AMT's popular '62 Pontiac model. This particular car was chosen for two reasons: It has the long, clean lines that sectioning truly highlights; and its basic shape is such that sectioning can be done by removing paneling from the bottom of the shell, rather than out of the middle (a much more difficult process).



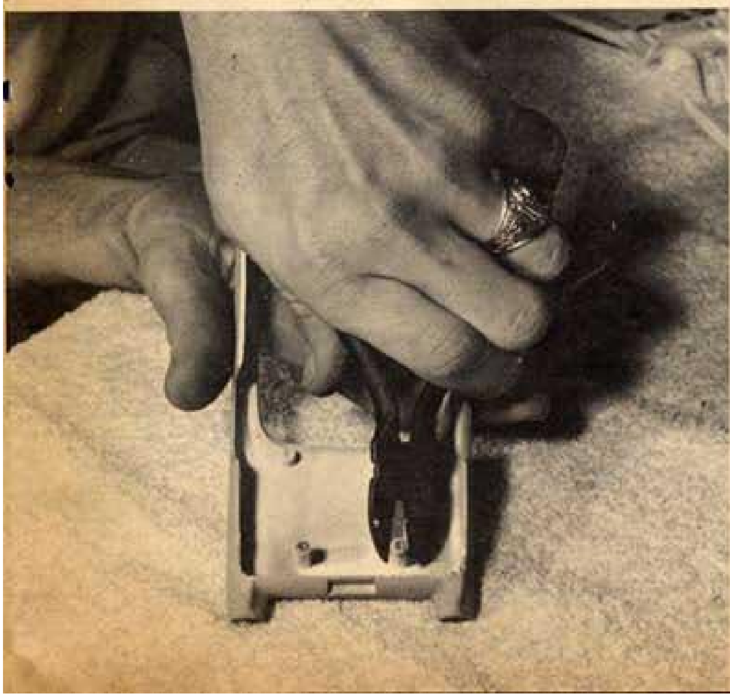
Now it's time to prepare the body shell for its final finish. Give it a smooth coat of AMT's primer. Paint comes later.

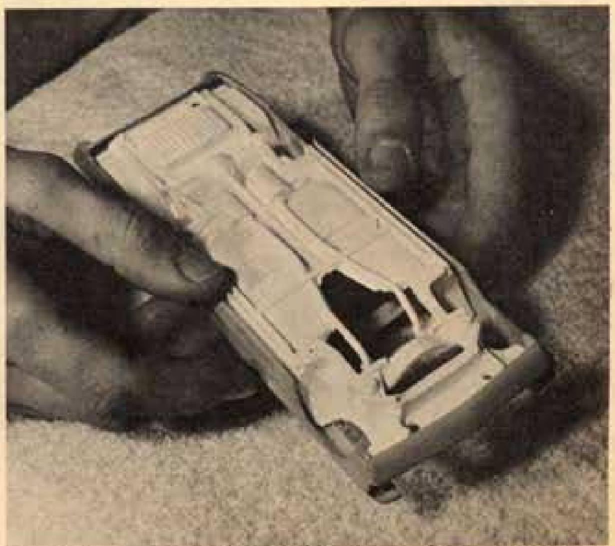


Slip the undercarriage into place and measure just how much a cut of wheel wells and attaching bosses is necessary.

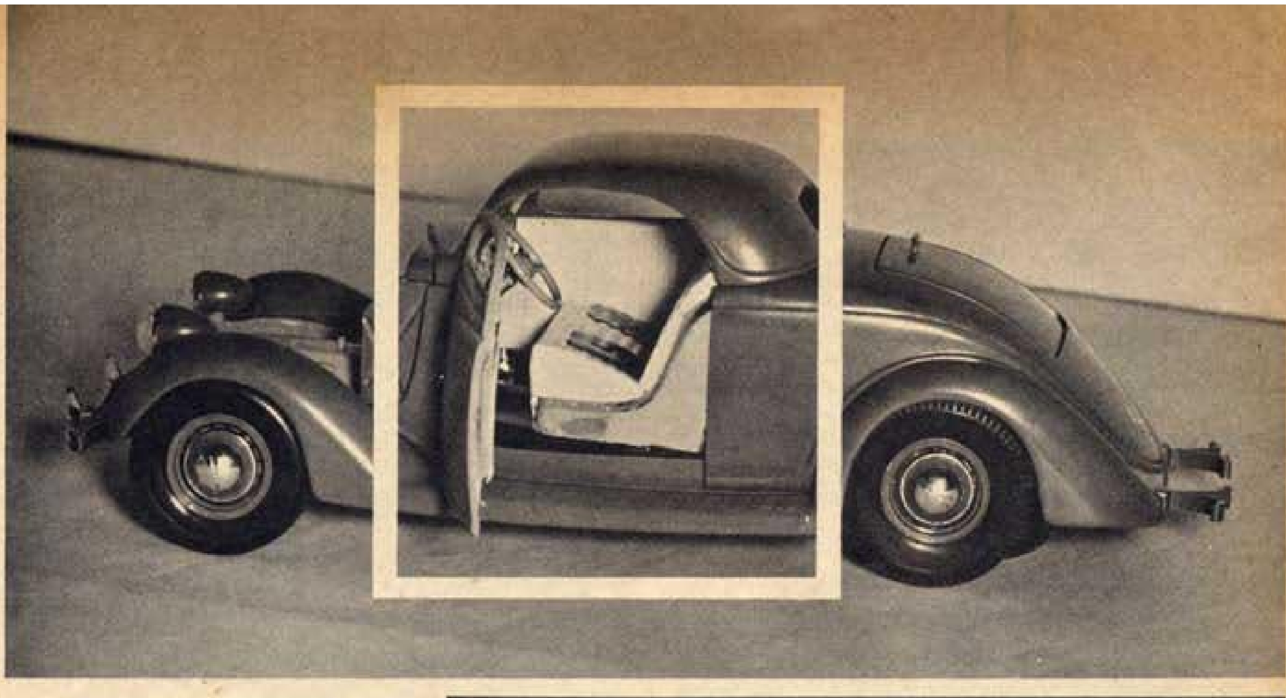


Protruding wheel well area is cut with a jeweler's saw in the same manner as the body shell. Sand when done.





Cut off the excess of the attaching bosses with a pair of dykes or pliers (left). Now you'll have a perfect fit.



If you're not satisfied with stock interiors, you can add that real custom touch with the few materials at right.



Beauty on the INSIDE

With model car builders increasing their skills so rapidly, today's model contests are often won by the man who has added just that little extra touch. There is no other bit of finishing that does more to add winning appeal to a top car than custom finishing of the interior. On these pages you will find all of the easy and inexpensive steps necessary to give your car the look of beauty on the inside.

Materials needed for this quick upholstery job are Scotch brand plastic tape, styrene glue, Tuck brand chrome tape, leather lacing, scissors and an Xacto knife with a #11 blade. All or most of these are available at any well equipped hobby shop. If you have trouble finding the leather lacing, consult your phone book for the name of the local distributor of the Tandy Leather Co.



The first step in making your custom seats is to cut the leather lacing into strips of approximately 2½ inches.



Apply the strips horizontally to seat after applying cement. Do two or three strips with each application.

Nothing gives a model more winning quality than a custom upholstery job



After all of the strips are in place, trim the ends neatly with scissors. Be sure to remove all excess cement.



Now take the plastic tape and cut a strip that is the width of the seat. Trim evenly with your scissors.



Use your fingernail or the end of a blunt stick to press tape down over leather surface for Naugahyde effect.



Trim the edges with scissors and Xacto knife. Stretch the tape around the sides and the corners of the seat.



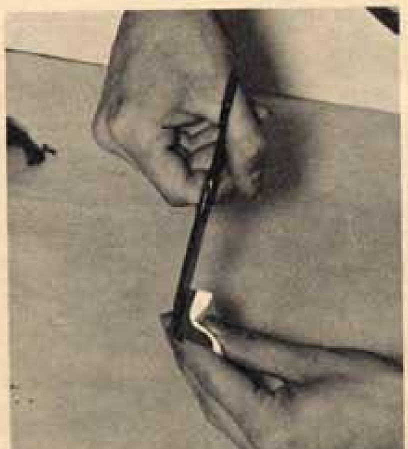
Here is how you're finished upholstery job should look. The deep pleated look matches the best of the big cars.



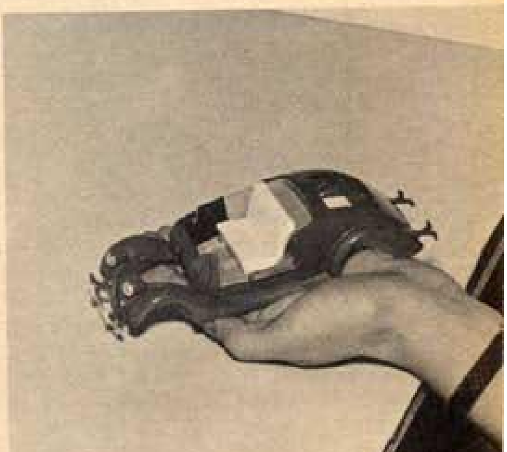
A final touch is added with the use of chrome tape. Cut a piece sufficient to cover the side and edges of the seat.



Apply tape to clean surface and rub with finger or soft cloth. Be sure that all air bubbles are removed.

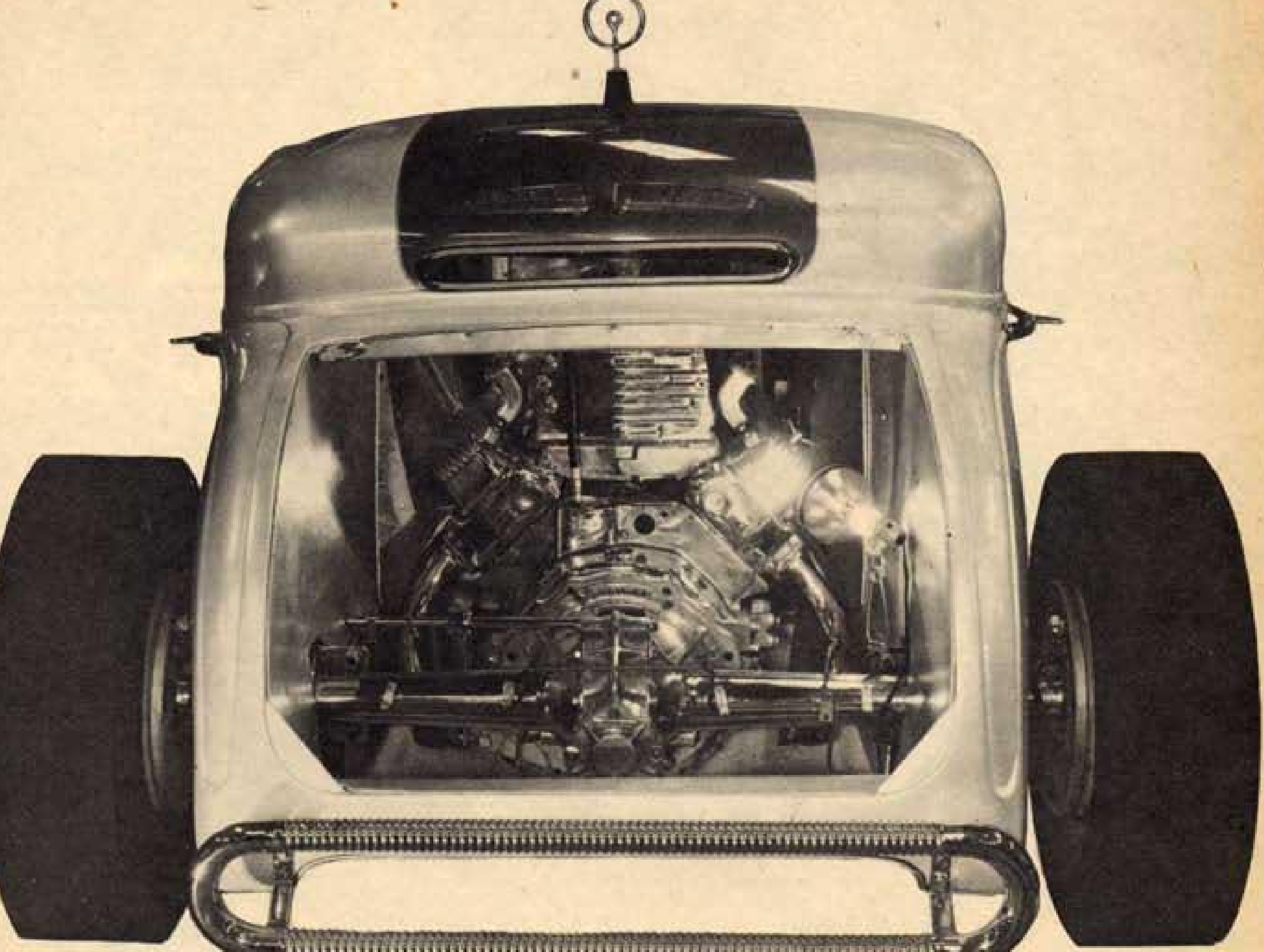


Finish off the chrome trim by very carefully cutting the edges with scissors. Take your time here.



Door panels and headliner can be trimmed also with simulated Naugahyde by using the exact same methods as seats.

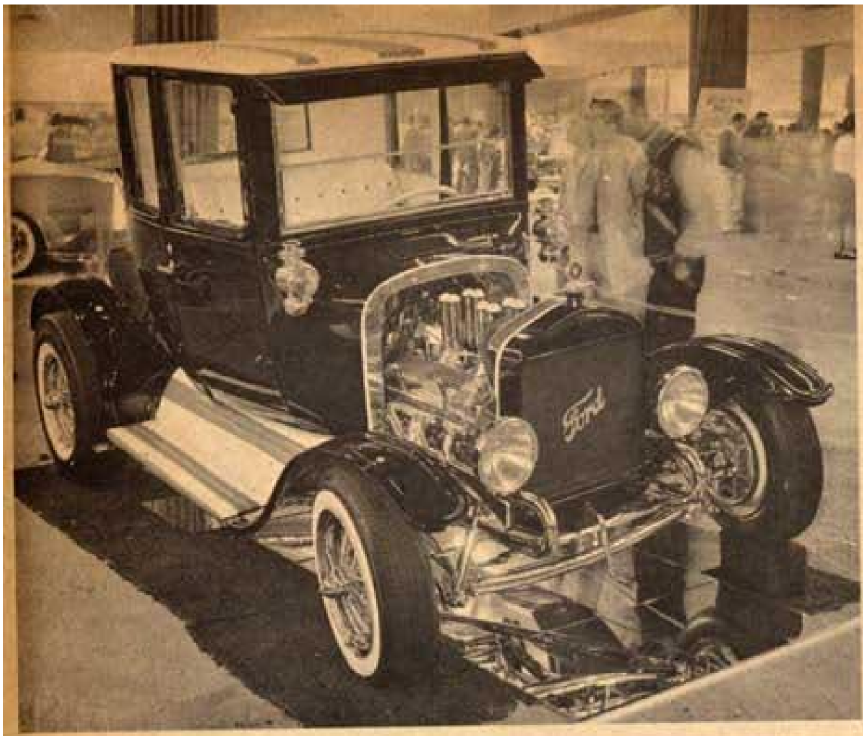
GREAT BIG EXAMPLES



One of the wildest show cars in the country is this competition coupe built by George Barris and John Geraghty. Note engine.

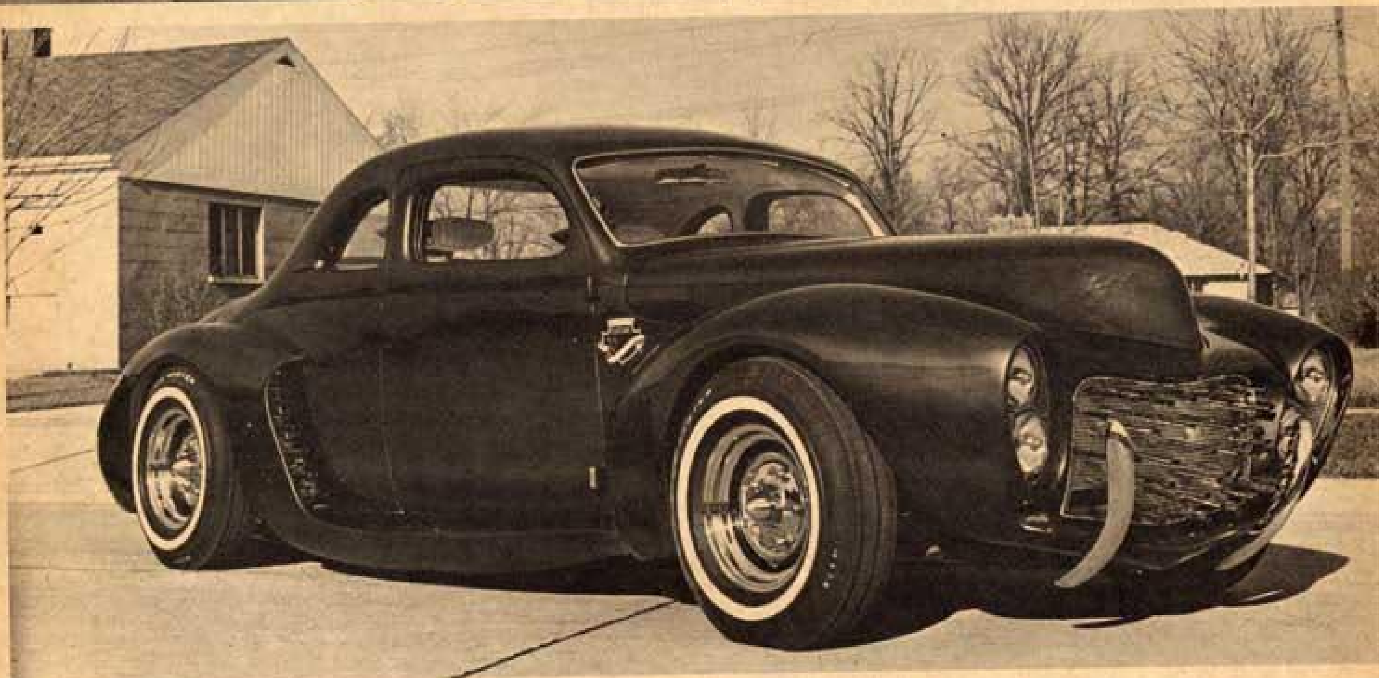
There isn't a model car on the next six pages, but there certainly are the ideas for the creation of a thousand model originals. The great full-size cars that you see displayed here are gathered from the pages of our sister publications, POPULAR HOT RODDING and POPULAR CUSTOMS. These are but a few of the customs and rods that auto enthusiasts across the country are creating in their hobby of building and driving beautiful machinery. We display them here so that you can see what a world of model building ideas already exist in the big machines. Study these cars carefully. Each has more than its share of originality and practical procedures that you can duplicate in plastic.

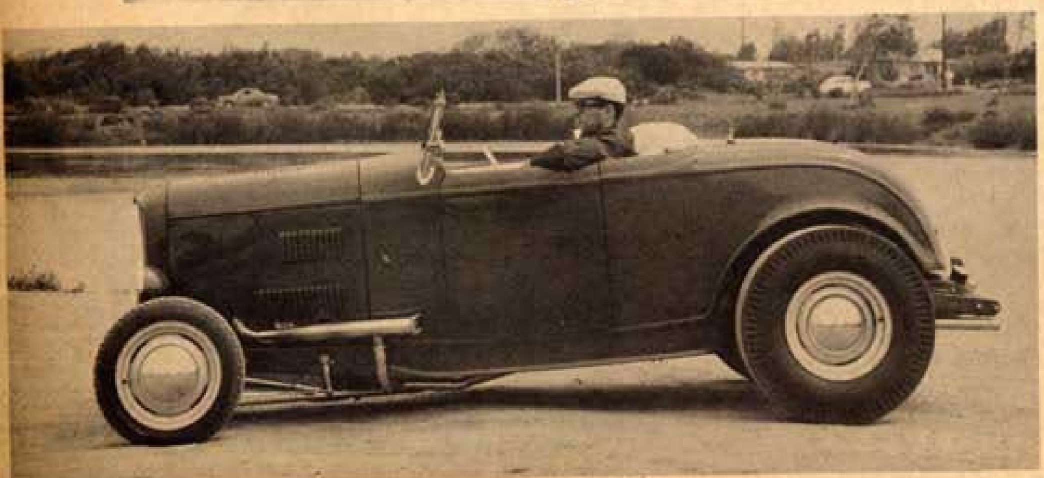




No body shell is too old for custom treatment. The ancient Model "T" Ford remains very popular with today's clever customizing hot rodders.







Full-size classics are the "El Matador" (above) and this beautiful '32 Ford Roadster (left). See model possibilities?

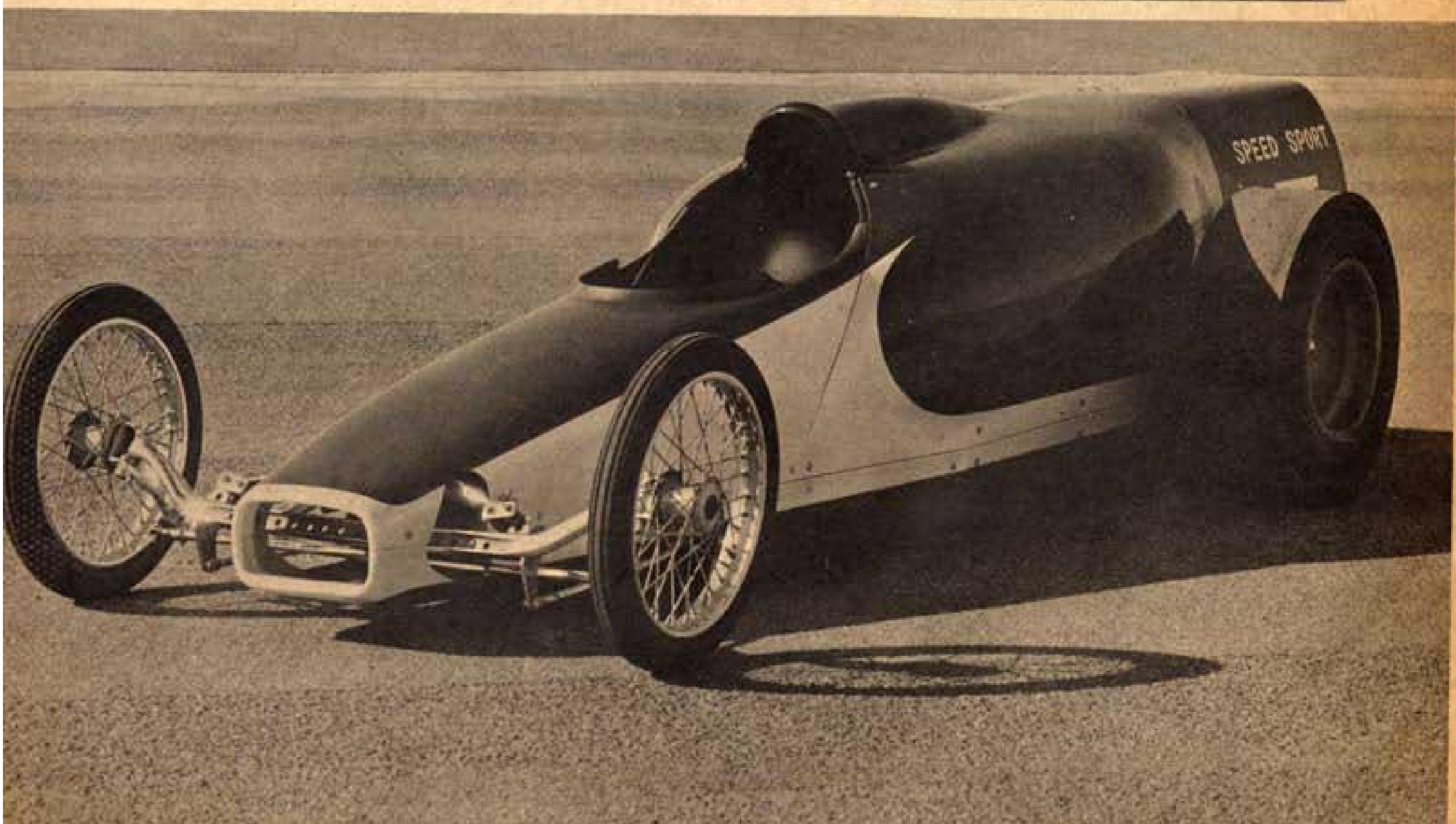




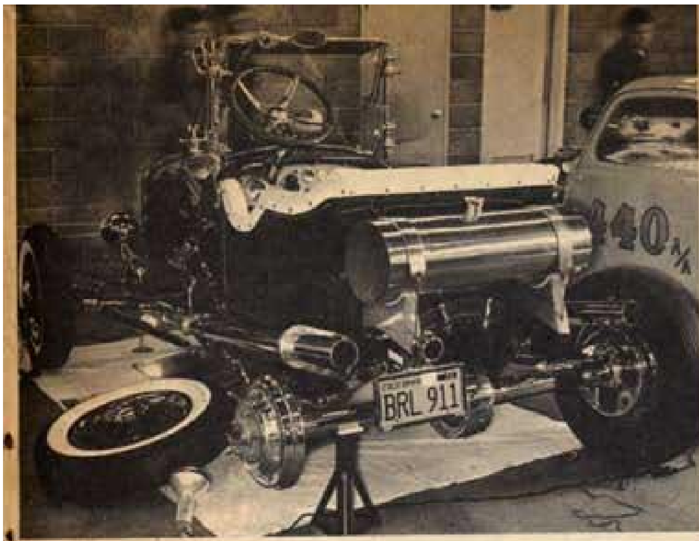




GREAT BIG EXAMPLES



YOU DON'T ALWAYS HAVE TO BUILD MODELS AROUND NORMAL ENGINES. THIS DRAGSTER IS POWERED BY COMPRESSED AIR.

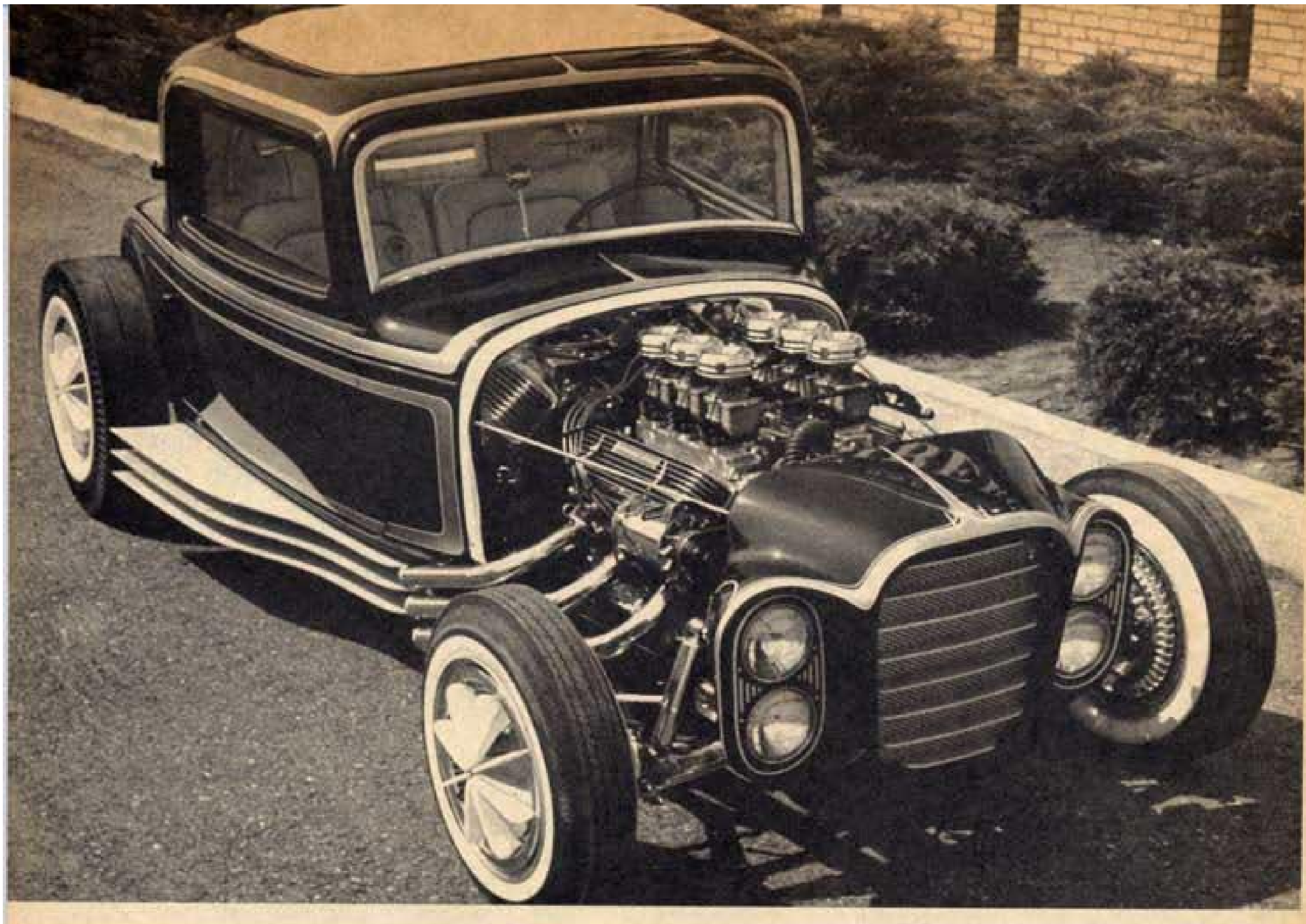


Roadsters are probably the favorite subject of the specialty car builder. You will find more examples here than for any other style. Revell's new body shells (see "First Reports") will be a big help in making some of these models.







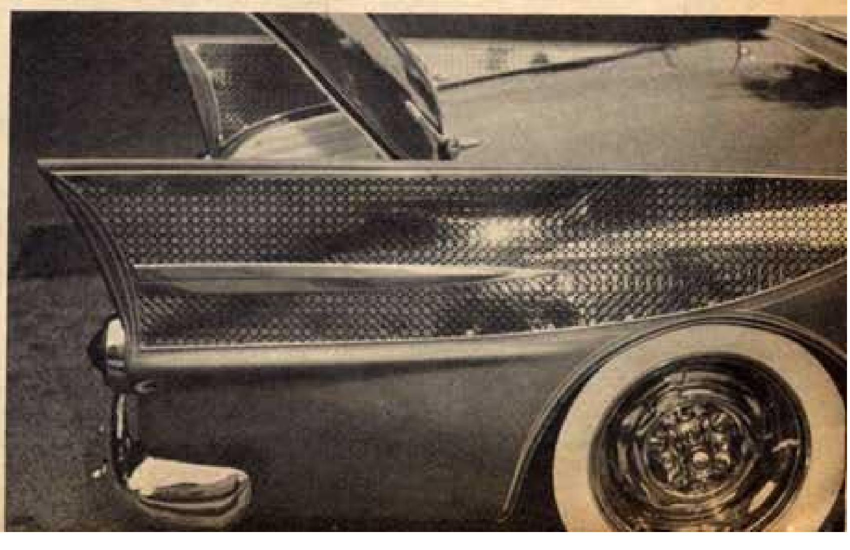


GREAT BIG EXAMPLES



Front or rear, you can be as daring as your imagination allows. Bold, strong highlights are many times more effective than small and more difficult detailing. Don't forget trunk.





Grilles still offer the best area for the customizer's art. Many textures and materials are available to help you follow the example of these prize-winning show cars.

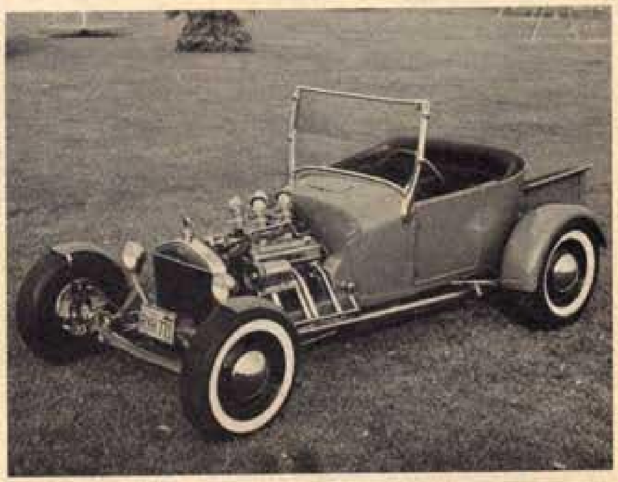


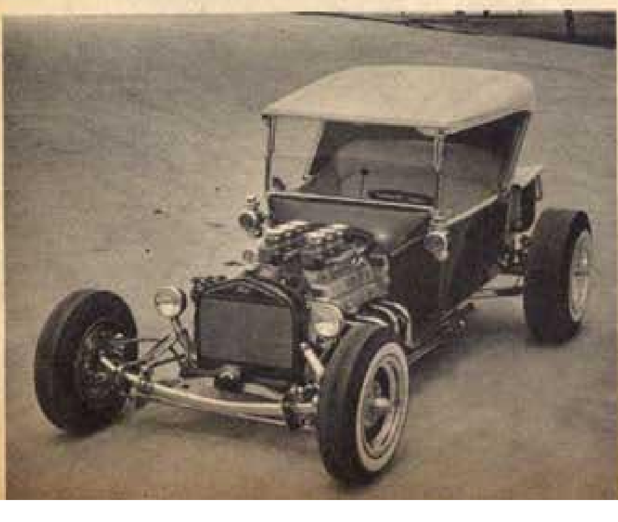


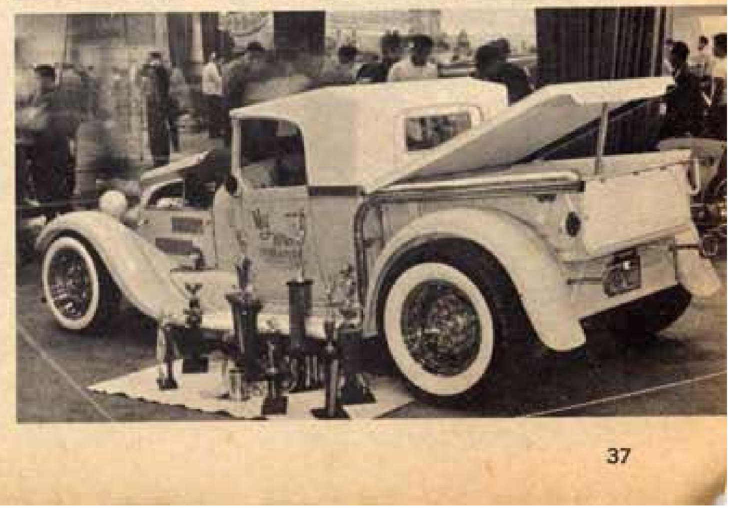


Pickup trucks aren't just work-horses. These roadster pickups are typical of the many that are always great favorites at car shows. They're as practical as they are pretty.









'Bird Pan On A PONTIAC



George Barris, AMT's styling consultant, gives us another tip here in the colorful world of customizing. Most modelers agree that one of the most satisfying aspects of model modifying is finding unrelated body components that go together with style. Barris has found such a match from two of AMT's 1962 model kits. As you can see here, the '62 Pontiac takes on a whole new appearance when its normal rear end configuration is swapped for the pan and taillights from the '62 Thunderbird. Here is a restyling job that can be done in a very short time.



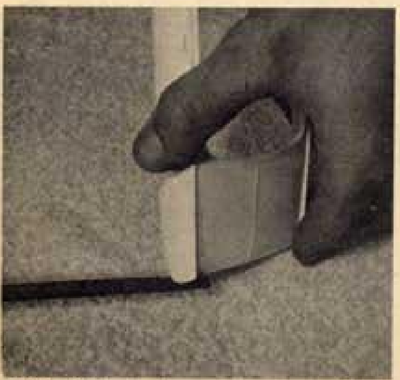
Two components are almost perfectly mated. Line them up to see just where alterations will have to be made.



File the Thunderbird pan so that it will fit around the projections that you have noted on the Pontiac.



Using a jeweler's saw, cut off the Pontiac's attaching bosses. They must be removed completely for fit.



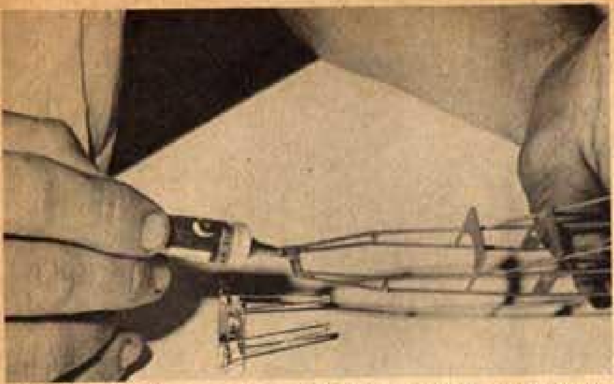
A file is the tool necessary now. The ends of the Pontiac fenders must be flattened to match the 'Bird's shape.



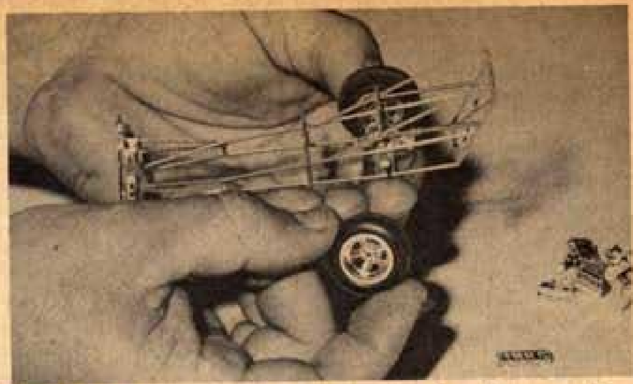
With both sections glued together, there will still be a few bad joints. Use AMT's body putty to fill in.



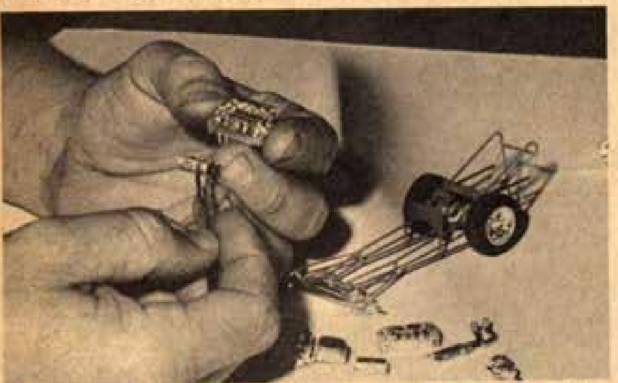
Carefully finish off the body putty joints with a file and sandpaper. Now prime the body for the paint job.



Assemble the frame rails and bracing from the basic drag frame parts you'll find at Revell's Custom Car Parts Shop.



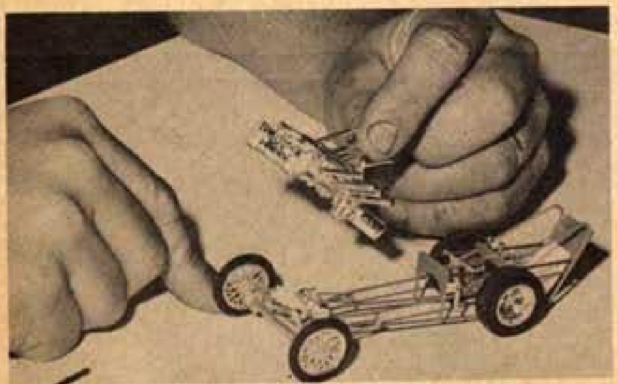
Big M&H Racemaster slicks are mounted on the rear axle. Small cycle tires go up front in true dragster fashion.



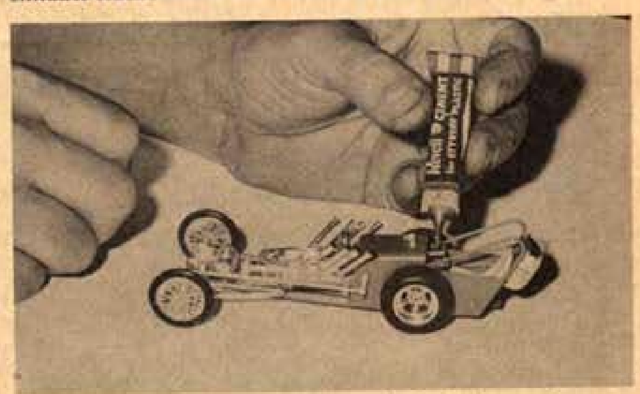
Assemblying the all chrome engine sees the use of a wide variety of the hottest speed equipment in hot rodding.



Big power touches are GM supercharger and chrome exhaust stacks which are cemented into header plate holes.



When the entire powerplant section has been assembled, it is mounted into its frame carriage with styrene cement.

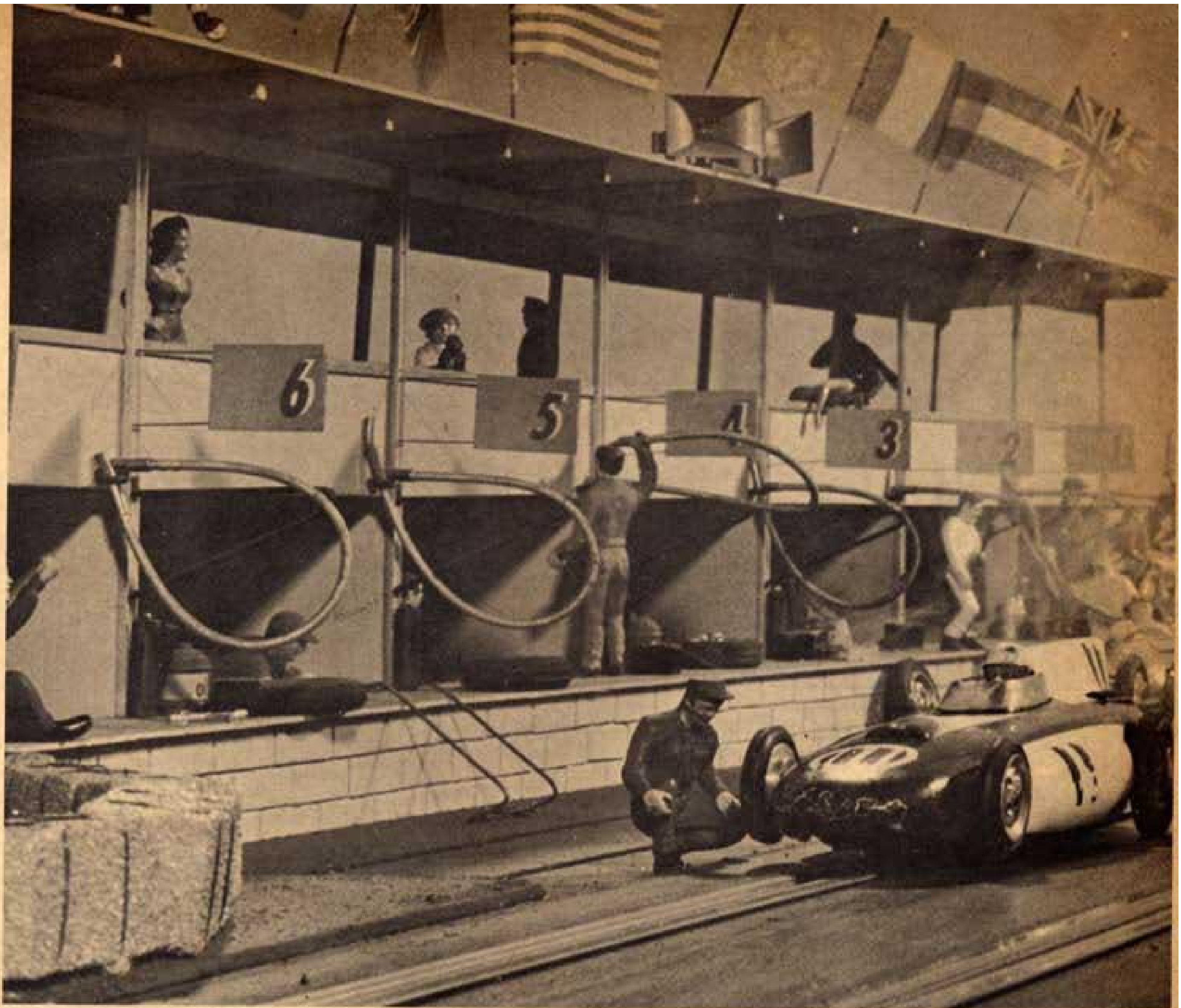


Final procedure is the installation of the body panels, steering wheel, shift lever and parachute pack behind driver.

DRAGSTER from Scratch

Ed Roth, "Big Daddy" of the customizers, may design with a wild hand, but when it comes time to produce top models, he is mighty practical. Using nothing more than a fingernail file and a tube of cement, Roth speedily assembled a speedy dragster using no other parts than those found in Revell's Custom Car Parts Shop. Parts needed from the 1/25th scale line are the basic drag frame kit, American Racing MAG competition wheel set, M&H slick competition tire set, cycle tires and a Chevrolet V-8 engine.







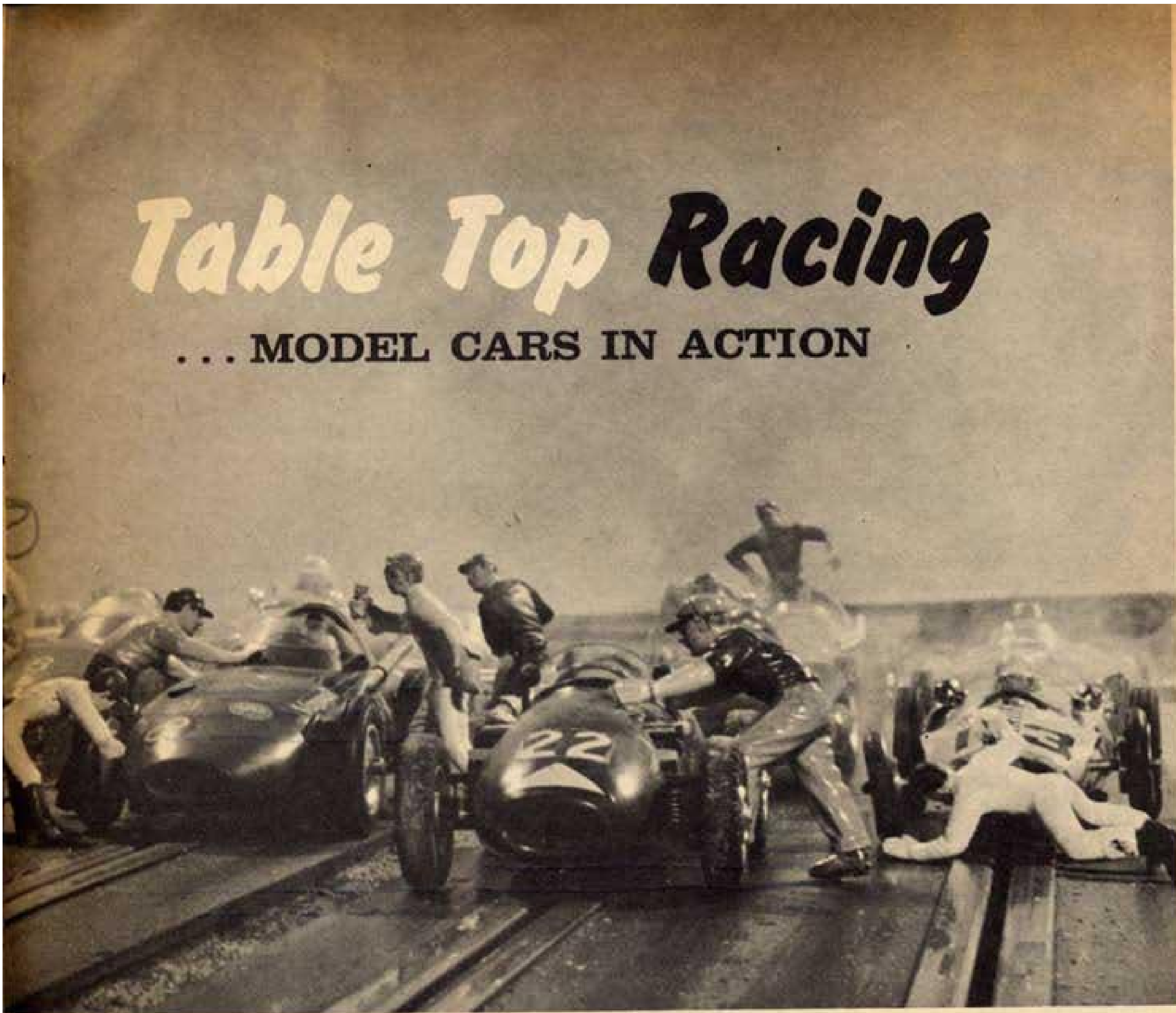


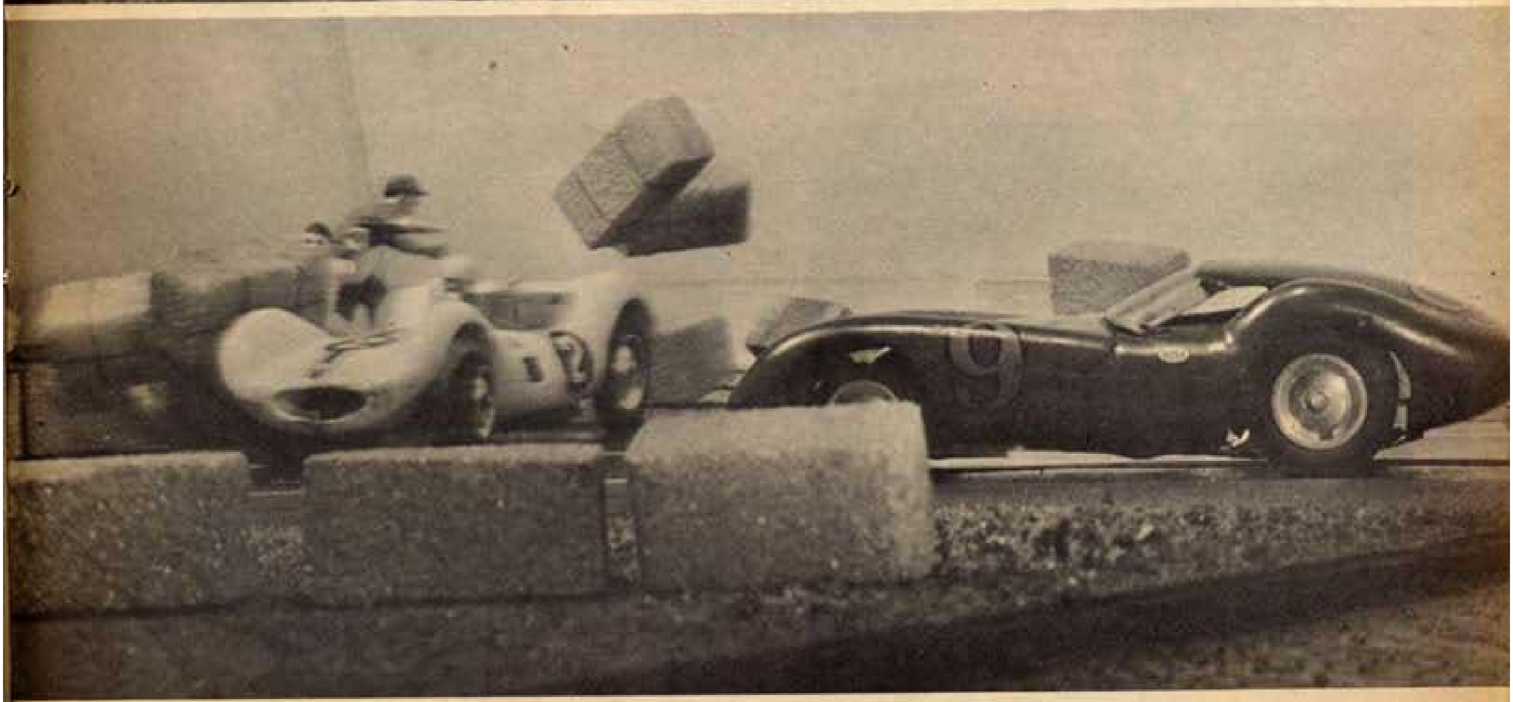
America's fastest growing hobby is an exciting sport that gives model enthusiasts the opportunity to put their cars to the test of true competition. On economical tracks, with simple electric motors, slot racers match driving skills and the basic design and construction of their cars. If you haven't gotten behind the controls yet, you are missing a new world of model thrills.

On the following pages and in coming months, MODEL CAR SCIENCE will present the news of slot racing and informative articles on how to make your car a winner. We urge you to join the table top Grand Prix . . . Get your model cars in the "groove."

Table Top Racing

. . . MODEL CARS IN ACTION





build your own TRACK

Do it yourself . . . for less than $20 you can have a championship road racing course

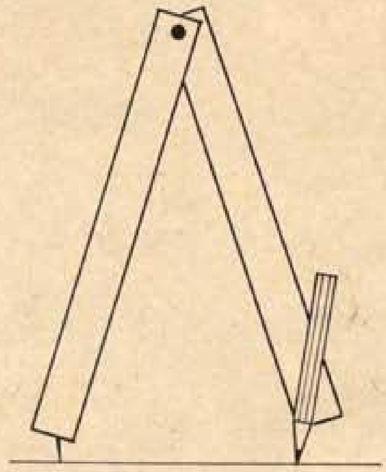
By Bill Sippel

THE original working idea of table top racing started in England in 1954. MODEL MAKER, an English magazine, saw great potential in this new hobby and devoted time and space to it, helping it grow into organized racing with set rules by early 1955. By this time it was picked up in the USA and international meets were taking place. But it was strictly a do-it-yourself system, with nothing of great abundance available commercially.

The big public introduction to the hobby in this country was made by the model industry — a progressive and rapidly expanding industry devoted to the manufacture of kits and sets. This year it has really hit a boon, become the hottest, fastest-growing hobby around. In no other way could it have reached so many people so quickly.

Now that the introduction is over, more and more people feel they would like to build their own table top course. There are many basic reasons in favor of home building, so let's explore the idea.

For one thing, you can build a track for less money, material costs being less than pre-built track per racing foot. You can also build any design you choose, whereas you are limited to a great degree by commercial track — such as radii, etc. You can come up with any number of lanes you wish, odd as well as even.

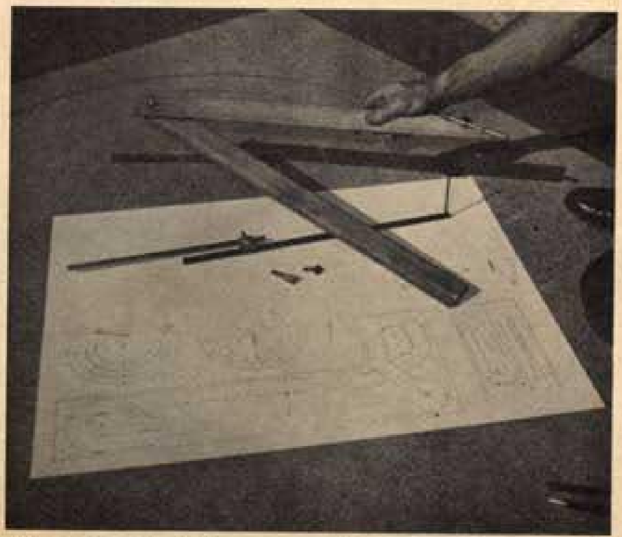


In laying out your course, you will need a big compass. Here is one that can be made easily from two boards, nails, a pencil, a nut and bolt.

You can chicane any degree you like or use in-line racing when desired. And, mainly, you can build a better track.

The ideal track must have a smooth surface and contact area, plus good tire bite. It should also be jointless to as much a degree as possible. This allows you to work toward better cars, using steering, suspensions, etc., successfully. There are cheaper ways to build than the way we list here, but they represent operative and maintenance problems, uneven slots, etc. An example is jog and ripsaw cutting of sections and applying them to a sub base. This lamination style is hard to control and uniform width of the slot is very important. Just as important is maintaining equal height or road surface level on either side of the slot. Therefore we prefer the solid sheet style, maintaining uniform running surfaces. The routed slot is always controlled in width and depth. Our main running surface is particle board 3/8-inch thick. It is very economical material and gives good tire adhesion even when unpainted. Power routers can be rented if you can't find a friend who owns one. Needed items will be at the end of the article.

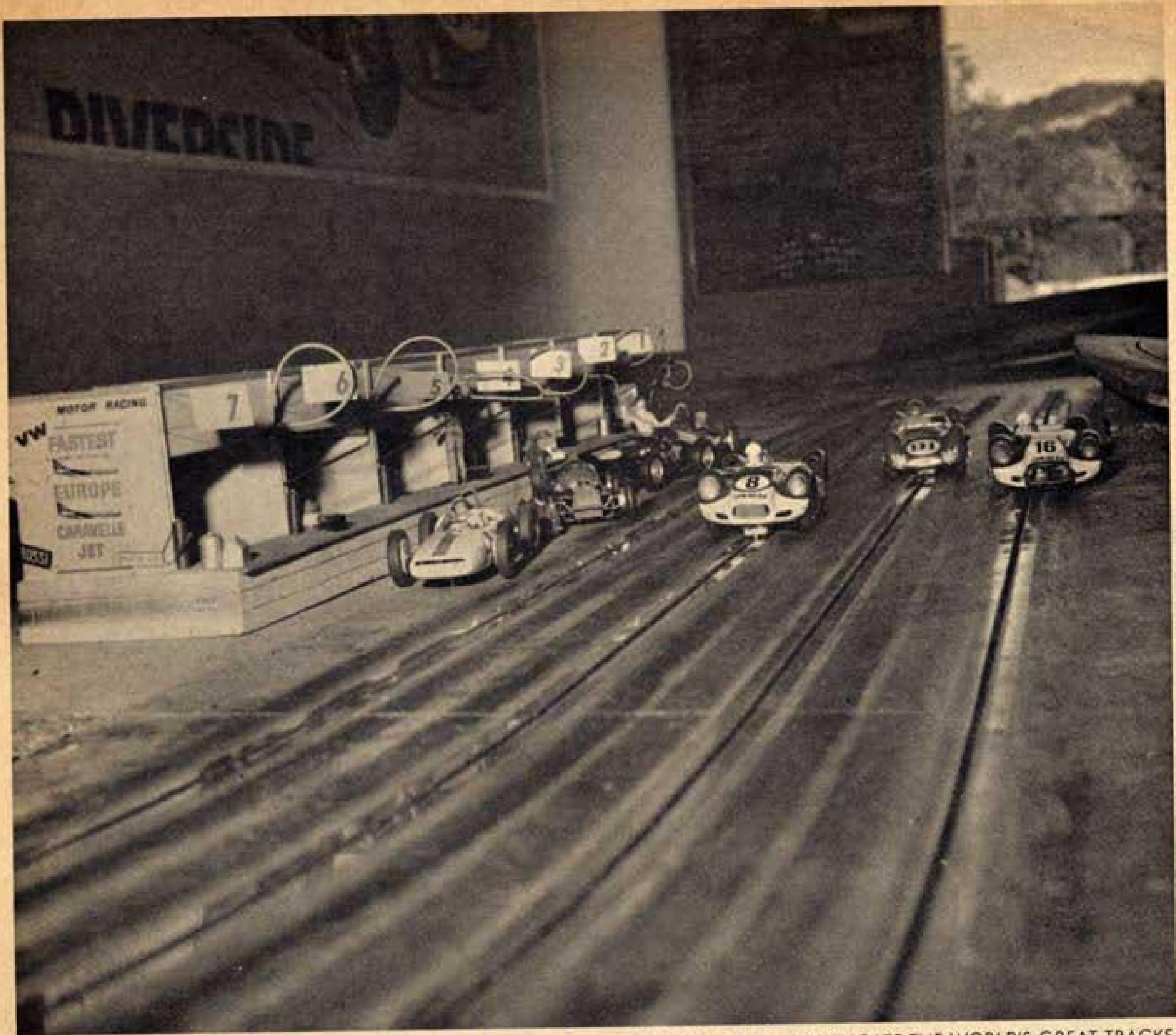
Your first move will be design layout, after you have decided on the size and shape of the table top to be used. Various designs can be laid out on sheets of paper to scale. (Usually one inch equals one foot.) Allow a minimum of three inches for each lane. In the turns add four inches to the outside lane to allow layout and eliminate riding the fence. It is always wise on a home-built course to have a minimum of three lanes. In this way, if a car spins, there is still a race going on. If you incorporate a bridge at some point, creating a figure eight, however odd shaped, cars will travel a nearly equal distance. A non-cross-over or inside loop design will give one car the short way around. This style layout can



Here are most of the components necessary to prepare the particle board for your tracks original plans, home-built compass, expanding router guide and the router bits.



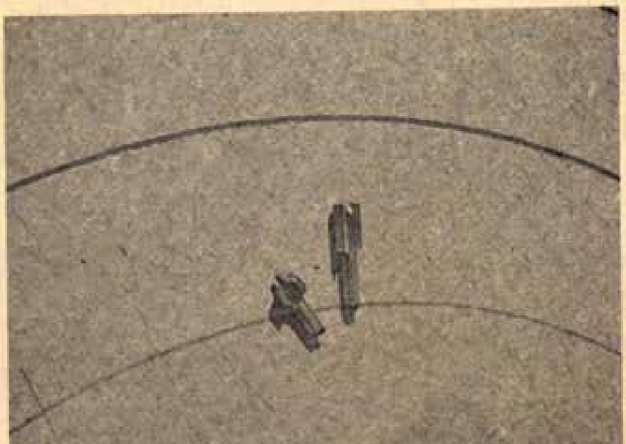
After you have your basic design in mind, it is time to transfer it by pencil to the particle board surface. Using the big compass you mark lines and center radius points.



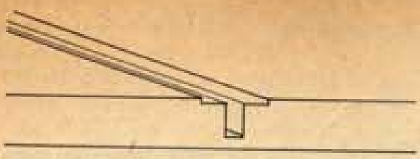
HERE THEY COME DOWN THE STRAIGHTAWAY OF A HOME-BUILT COURSE. YOU CAN DUPLICATE THE WORLD'S GREAT TRACKS.



Setting up the router guide is very easy. Nail it firmly in place at the radius point, move the sliding bar to the cutting area and tighten it in place with the slip clamp.



Drills for your router cutting. The one at right is specially prepared for the extra routing procedure which is necessary if you want to use the tin coated braided wire.



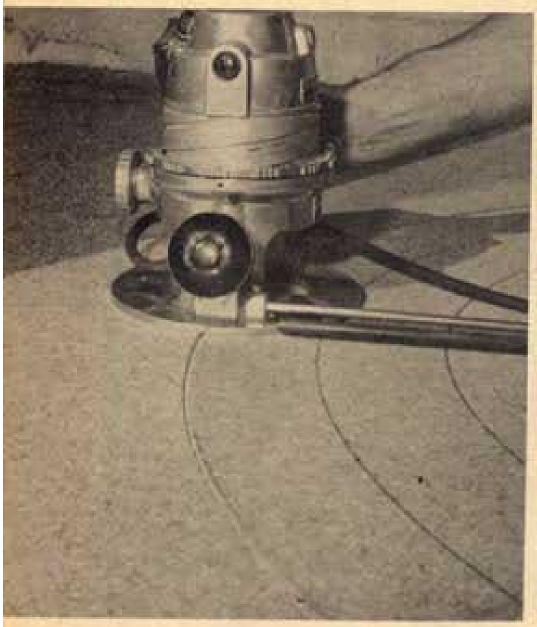
The use of braided wire calls for an extra recession in the groove. This is done with a second routing process.

still be fair by shifting cars every few laps in a given race, so each car and driver runs on every lane an equal distance.

Keep in mind the things you can do that are not possible with commercial track. You can have any radius or degree of curve you wish, decreasing or increasing curves, chicane at any point in straights or curves, one or all lanes. You can use in-line racing where lanes narrow through a turn so all cars take the groove, as in real racing.

With the final design decided upon, it can be transferred in full scale to the particle board. If you intend to incorporate elevations into the design, then just tack the boards in place lightly so they can be pulled loose after routing. In transferring the design, an economical compass can be made from two boards, nails, pencil, a nut and bolt. When draw-

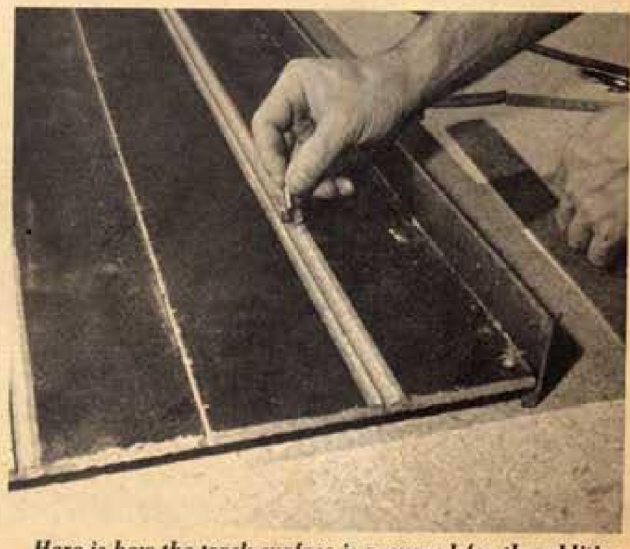
The router in action. If you can't borrow one from a friend, they are rented in most cities. Never run the router over your pattern "free-hand" for it is impossible to keep a straight line using your eye and arm for guides.







Putting metallic tape in place is a quick and easy operation. Always "lead" the area you are rubbing into place by about a foot. Press the tape down firmly with a small block.



Here is how the track surface is prepared for the addition of braided wire. Special drill makes an extra recession at the top of slot to allow for the extra wire thickness.

ing the curves, mark all center radius points for ease in location when routing starts. With all radii drawn in, connecting lines handle the straights. At points where you wish to in-line or chicane the track, the normal way is to make the distance between lanes one half the standard distance. This is accomplished by pulling back the center point of each larger radius the above amount over the one previously drawn.

With the design completely drawn out, we are ready to go to the router. Set the cutter so it routs 1/4 inch deep; the router drill will control the 1/8-inch width. The 1/4-inch depth allows ample clearance for the 3/16-inch guide depth allowed by International rules. You can not free-hand with a power router successfully. A cheap method of router control is two 1/4 inch diameter rods of enough length to reach your widest radius. One will slip into the router guide hole and be securely fastened. The other rod will have a hole drilled at the far or radius center end and a slip clamp will fasten the two together at any desired distance.

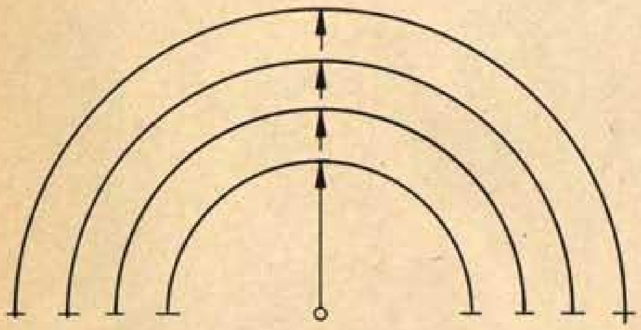
Picking any turn, drive a nail through the router guide-rod hole into the radius center hole. Telescope the router out to the radius line, tighten the rod clamp and, starting at one end of the radius, power through to the other end. Telescope to the next radius line and repeat. Do all of the radii first, as in drawing the layout.

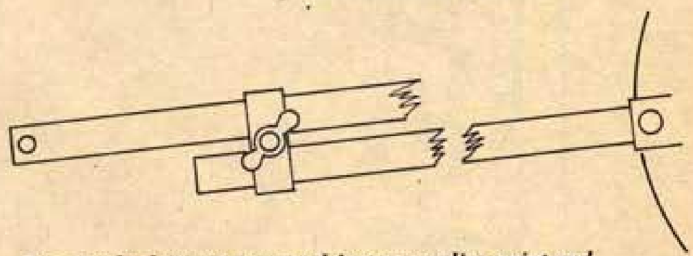
In doing esses after the first radius set has been cut, set the router cutter in the existing slot end, tighten rod clamp and power away from there. This way there is no mis-match where slots mate. With all radii finished, do the straights. Set the router cutter in the slot at the start of the straight. Take a straight board the length of the straight, pull against the edge of the router and nail it down. Repeat this at the opposite end of the straight. Drive in a couple more nails toward the middle of the board on long straights to keep from bowing. As you power the straights, push in the direction of travel and toward the board with quite some pressure to keep the router from "walking." Repeat in all straights and this should complete the slotting of the track. Touch lightly along the slot edges with sand paper or a small file to remove any small burrs. It is now time to tape.

There are at least three widely used self adhesive tapes for track contracts: 3M #425 aluminum, Strombecker copper and Permacell aluminum. These are all about .004 thickness, so we do not have a surface height problem here. The normal width used is 1/4 inch. In the case of the copper, it may be soldered at mating ends or, like the aluminum, a staple may be run through the adjoining ends. Pricewise, aluminum is the better buy. In putting down tape, it works well to pre-lead with the roll about a foot ahead of the area where you are contacting the track, staying upward at an angle. With a small block in the other hand, press the tape down onto the track surface. You can go through turns using this system without wrinkles and do a complete lap with one piece of tape, leaving only one adjoining end. This should end with the tape overlay in the direction of travel. Continue until all lanes are taped.

One thing to remember while laying tape is to stay 1/32 of an inch from the edge of the slot so the guide on the car does not peel the tape up in the turns.

Continued on next page

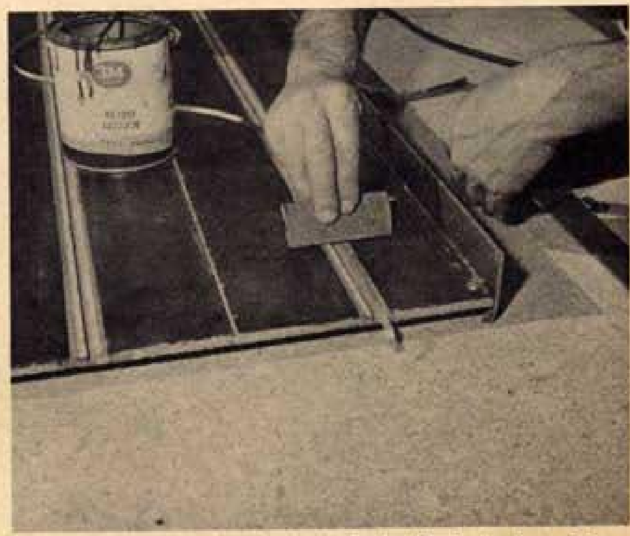




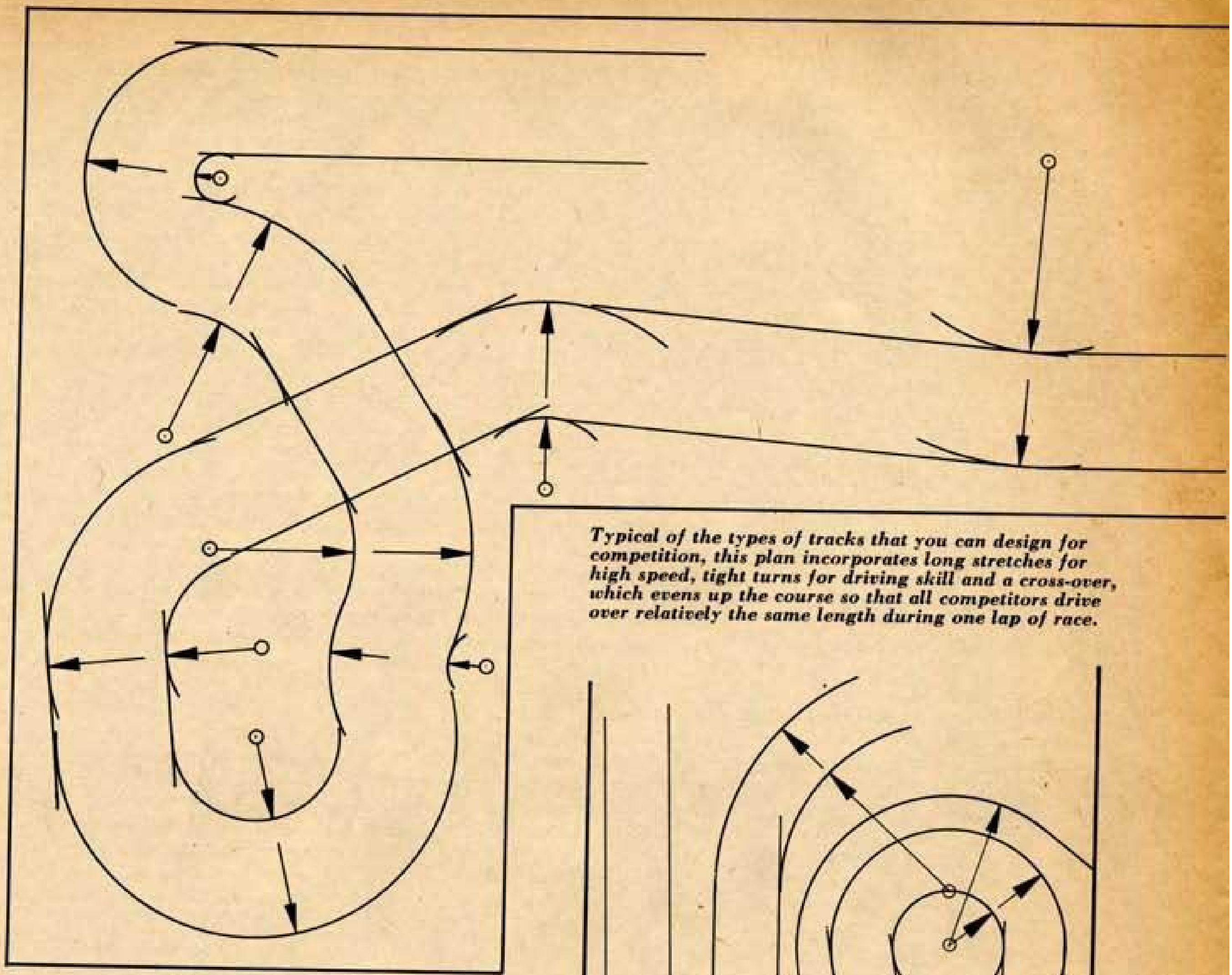
For standard curves you need just one radius point and carefully marked lines. Diagram above shows the basic components needed to make the router guide for use on the curves. Arms are ½-inch diameter metal rods. One end slips into the router guide hole; the other is nailed in place.



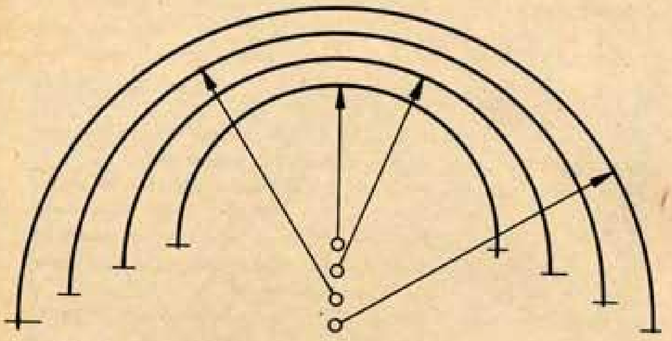
Tin coated copper braided wire offers a little more problem in construction, but in the long run is the best conductor. It is put in place with 3M #1357 bonding agent.



Use the bonding agent to put the braided wire in position. When completed, this set-up gives extra long life and good contact with little or no maintenance involved.



Typical of the types of tracks that you can design for competition, this plan incorporates long stretches for high speed, tight turns for driving skill and a cross-over, which evens up the course so that all competitors drive over relatively the same length during one lap of race.



By changing the radius points on the curve you can create a hazardous turn that will cause cars that are neck and neck in competition to chicane together. If you incorporate such a turn in your layout, be sure to keep radius points parallel; stay with them carefully in your routing.

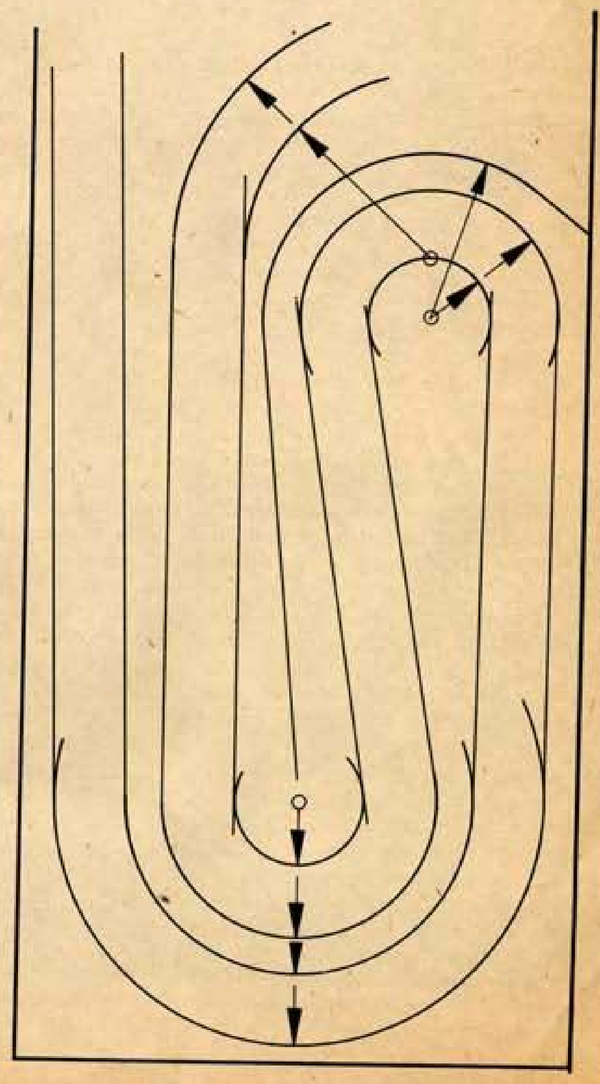
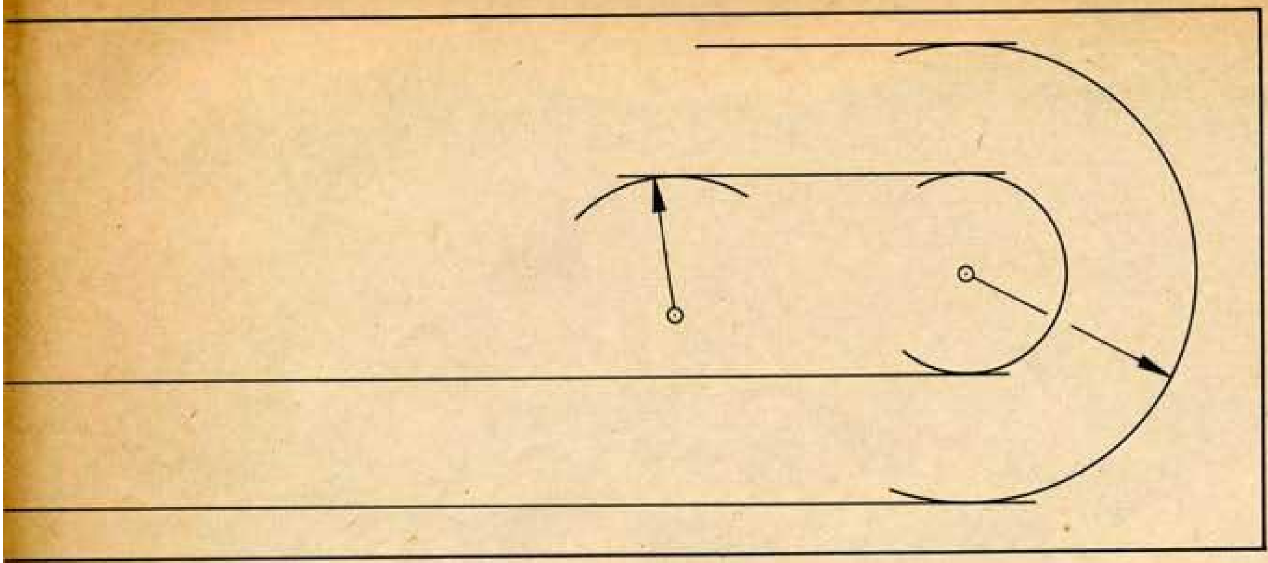


Diagram at right illustrates just how much track can be packed into a small area. This type of curve design also lends itself to elevation at one end. Track can be raised by the builder only after the routing has been completed.



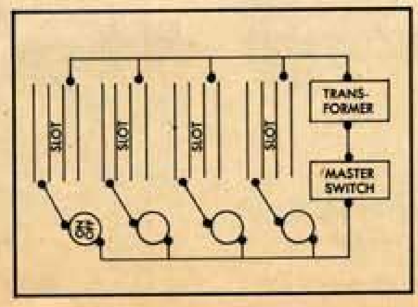
The deluxe but more expensive way of taping the track is with tin coated copper braided wire. This is manufactured by many companies for ground straps in the electronics, aircraft, and television fields. The normal width used in this way is 3/16 inches wide material and .020 to .025 inch thickness. This thickness creates a problem if left on top of the surface as it will trip and flip cars in the turns unless you are a very experienced rail racer. Therefore it must be recessed into the track so the top running surface is flush with the track running surface. This can be done with a complete repeat performance of routing the track, only going much faster. Using a router bit 1/2 inch wide, do a complete rerun of the track, only this time just making a skim cut of .020 depth. A faster way yet, if you are equipped, is . . . pick up a surplus aircraft drill 1/2 inch diameter, with the open center, or a standard 1/2 inch diameter drill. If aircraft, bush and insert a 1/8 inch pilot shaft. (If a standard drill, grind to 1/8 inch pilot shaft size on the end.) In either case, sharpen the main drill flat as a milling cutter so the cut is flat. With this system you can just run around the track, the pilot running in the slot to guide your freehand operation. With this system, after routing, bond the braid to the recessed area. Bonding agent 3M #1357 works very well. This is a track that just doesn't wear out and gives good contact with little or no maintenance.

With the contact material in place, it is time to wire. To be set for International racing, the positive is on the left and the negative on the right, looking in the direction of travel (see diagram).

If you make elevations you must decide where to make the cuts. Make your cuts around the areas to be raised and then nail the flat areas down solidly. Pull the other areas to the elevations you desire and block them there through spacers between the underbase and main track material, nailing everything in place. In making the cuts be sure you allow enough material for layout areas in the turns so cars cannot ride the fence. In cases of elevations, do all routing before raising, including braid recessing. Then, and this is important, raise before taping to keep tapes tight.

You are now ready to run, as far as the course is concerned, and cars run on the plain surface with success. If you paint, rubber base materials work well, and some people like to top the paint off with non skid wax.

At a later date we will go into decorating, buildings, and accessories. We have had as much as 32 feet per lap, four lanes, on one four-by-eight-foot sheet by using chicanes and in-line turns. Using tape, including paint; main surface; underbase; router rental and bit; paint and wire, it represented under $20.00 cost. On a huge 24-by-six foot, plus a two-by-eight foot wing, 94 feet per lap, four lane table top (using braided wire and all above mentioned materials) this unit ran under $100.



We hope we have helped you. If it sounds like work to you, we may have saved you the trouble of starting. If you feel building is half the fun of racing, then right here you have the first half.

*** If you wish to race only 1/32 scale cars then you can build to 2 3/4 inches between slots. If 1/24 scale only, then 3 1/4 inch between slots. For both, use the compromise of 3 inches between slots.**

**** Make sure the router bit is the wide side to the slot wall to keep perfect alignment of adjoining cuts.**

***** If you wish to use a protective railing or fence, telescope 5 inches beyond the outside slot and ruote another slot. Into this insert a piece of 1/8 inch Masonite with bonding agent, precut to the height you desire.**

MATERIALS LIST

4 foot by 8 foot particle board sheets for running surface 3/8 inch thickness

4 foot by 8 foot Plyscord plywood sheets for underbase 3/8 inch to 5/8 inch thickness

Aluminum or copper tape 1/4 inch width, or 3/16 inch braided wire and bonding agent

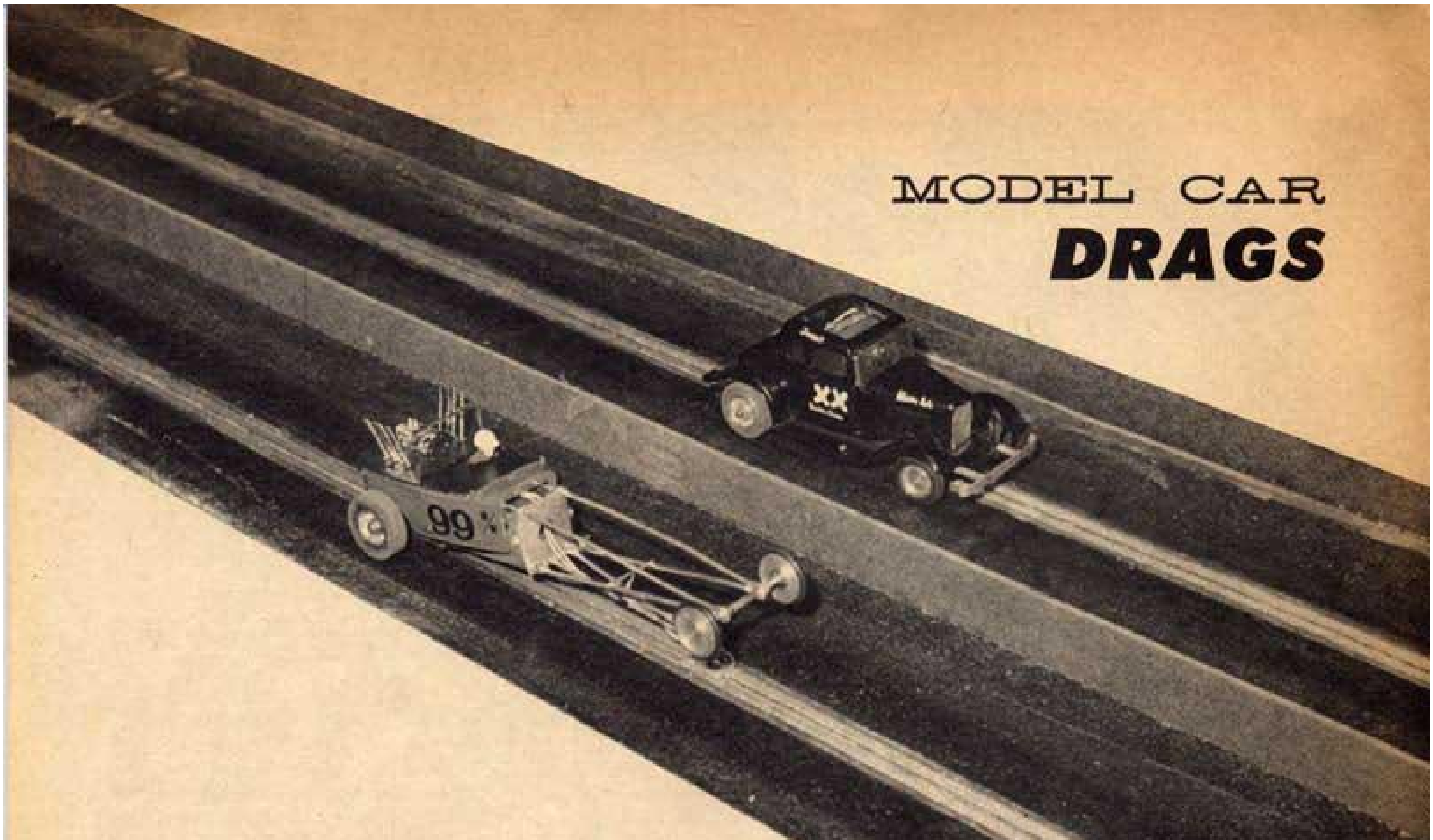
Power router — rental

Router bits, either Stanley #204 or Porter #1204 for 1/8 by 1/4 slot

Nails, screws, paint, brush, wire, etc.

If braided, a 1/2 inch drill or router cutter #216

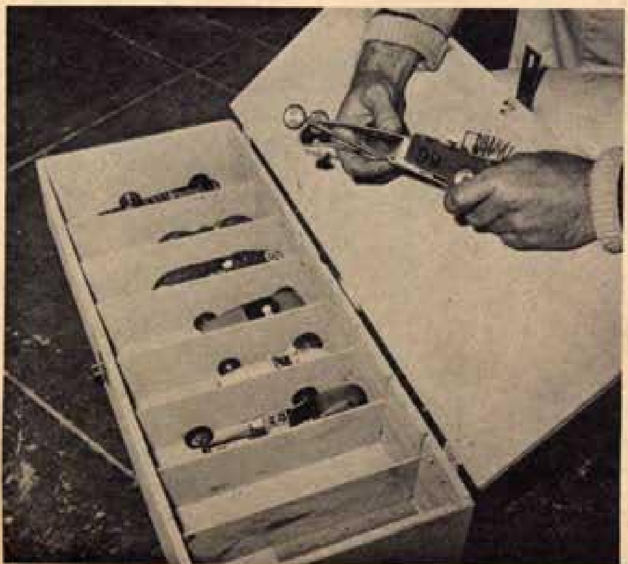
With tape in place, it's time to wire. Put positive connection on the left and negative on the right (looking in the direction of travel). You can use old model railroading transformer.



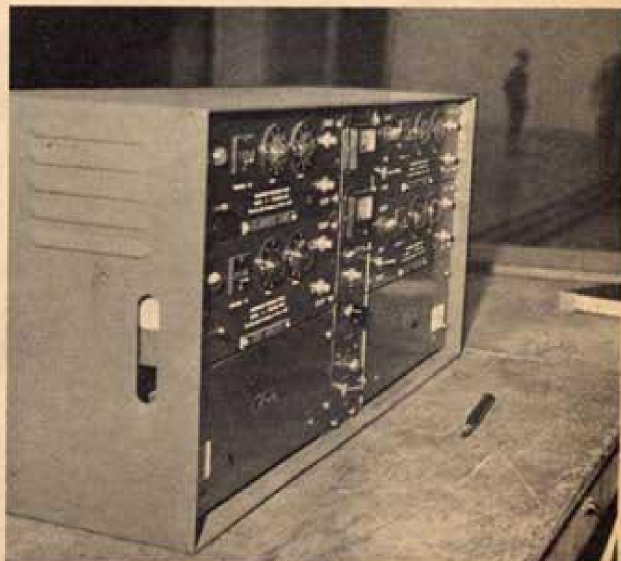
MODEL CAR DRAGS

All-out speed down the slot

Not all table top racers are made for the sharp cornering competition of a sports car track. One of the most popular aspects of electric racing is in straight-line dragging competitions of sheer speed. Running a scale quarter mile (55 feet) under power, the little hot rods turn amazing times. They have gone through the traps in 1.36 seconds and reach speeds over 60 *true* miles per hour. Cars are run in various classes which are determined by the voltage used.



A typical electric dragster shown off in the company of a proud owner's garage of competitors. This long "rail" job is capable of fast-breaking wheel-stands (see above).



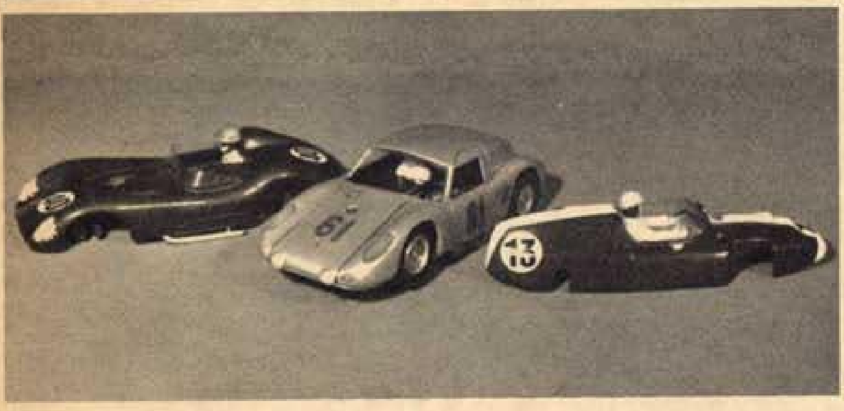
The little hot rods are timed in their runs with the complete electronic accuracy of Chrondek clocks. This is the same equipment used at the nation's leading full-size drag strips.

One of the most interesting cars mailed in for the Speed Show competition was this little Mini from M. G. Pannett of England. Car has unique four-wheel drive. Lap count was kept by a re-worked pin-ball machine (right).

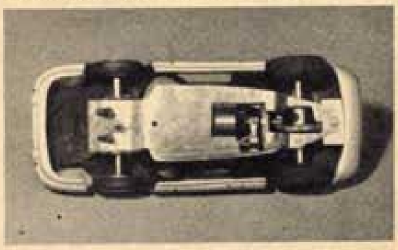






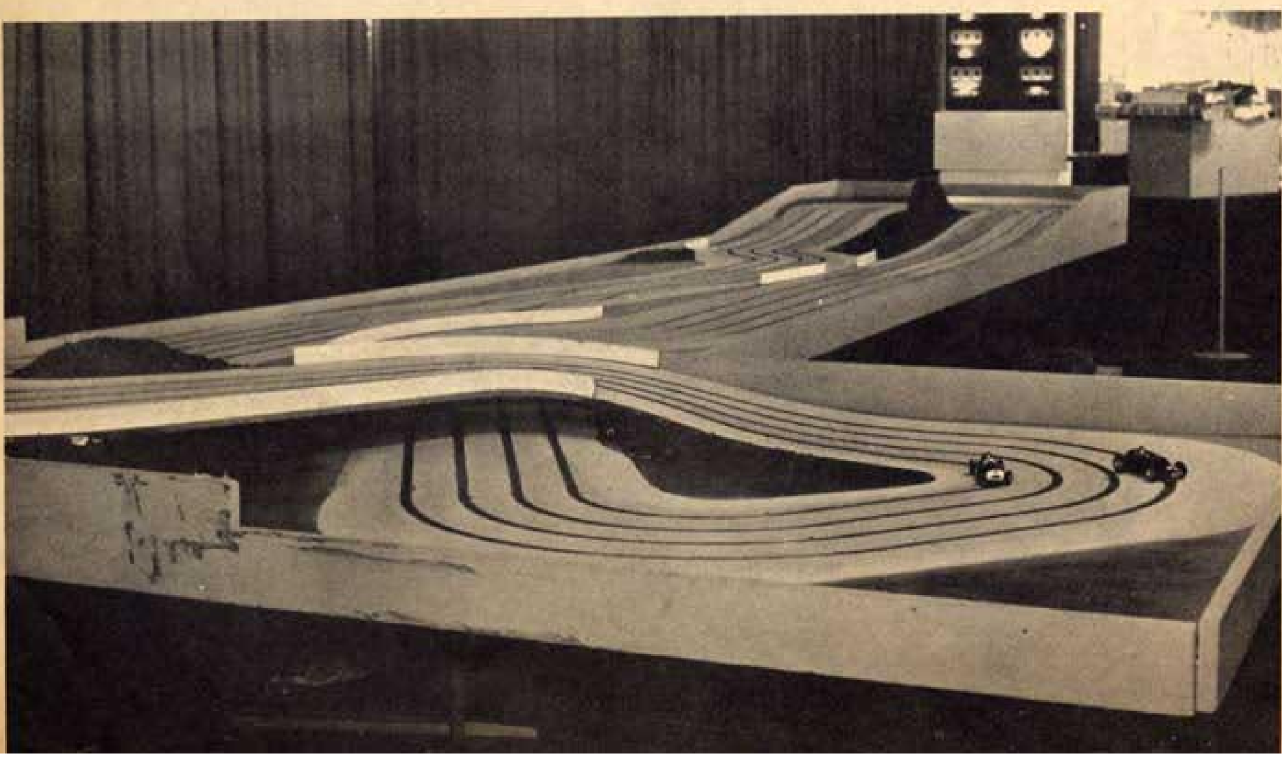


A real racing stable was mailed in from Michigan by Pete Hagenbuch. One chassis and three bodies for various racing categories were included. Underside of chassis is shown below.



SLOT RACERS AT THE SPEED SHOW

One of the big events of the year in the automotive world is Mickey Thompson's famous Speed Show in Los Angeles. The fastest cars and most beautiful customs are on view in a real world's fair of great machines. Prominent in this year's event was a crowd-pleasing display of table top racing. A great new track was built for the event by MCS' Bill Sippel. Each night cars, mailed in from all parts of the world, competed in thrilling races.





AMT's Authentic Model Turnpike offers a radical approach to table top thrills

TURNPIKE!

Ramp jumping (careening off of side ramps), acrobatic dodging and maneuvering are just a few of the tricks that can be tried on the Turnpike. Another big feature is the cross-over track section (right), but drivers actually have to steer into the change.

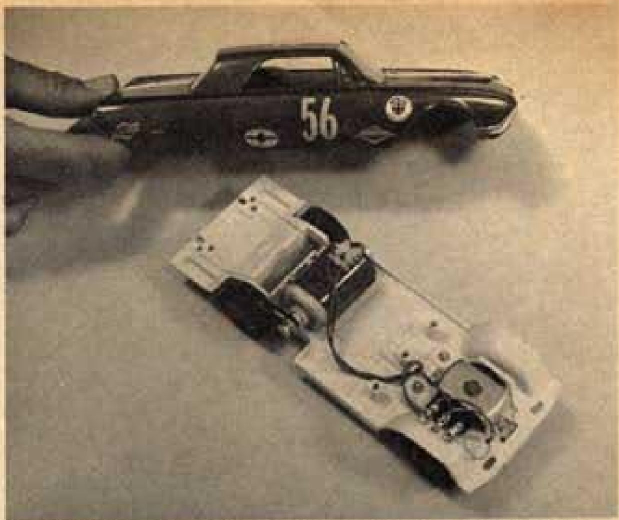


The most radical departure in the field of table top racing to appear within recent months has been the Authentic Model Turnpike of AMT. Departing in many ways from the standard slot racing mechanics, this set offers miniature racing enthusiasts the chance to actually steer their cars and to continue racing even though their vehicles may spin out during the event.

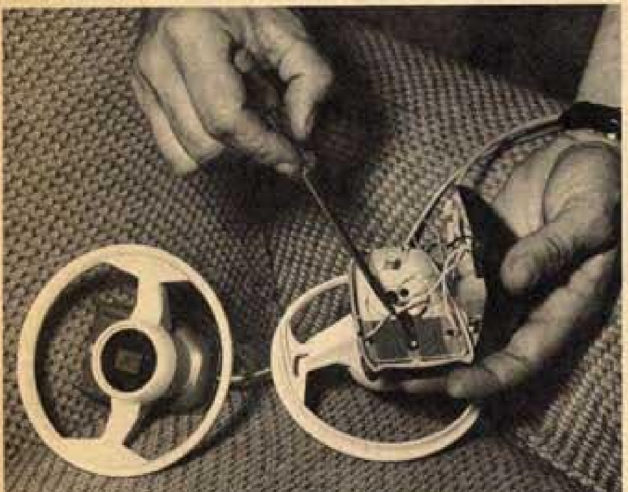
Key to the highly sophisticated handling system is the set's unique steering and control mechanism. This compact "brain" is small enough to fit in the palm of a hand. It has a steering wheel (operated in the same manner as that of a big car), speed regulating levers on either side of the wheel and a reverse gear switch. Another distinctive property of the 1/25th scale cars is quick-change two speed gearing which allows the operator a choice of two distinct ratios.



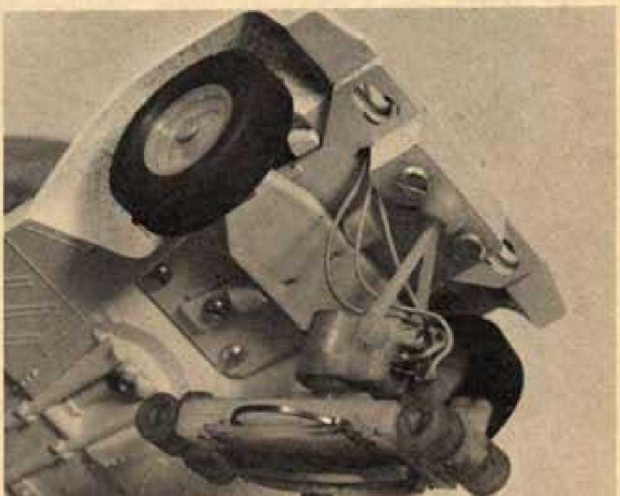
With the carriage in its proper position below track's surface, car is clipped over protruding guide pin. Connection is easily broken by applying a little upward pressure.



The 1/25th scale models can be customized or built into original racing creations. With relatively minor chassis modifications other body shells can be adapted to track.



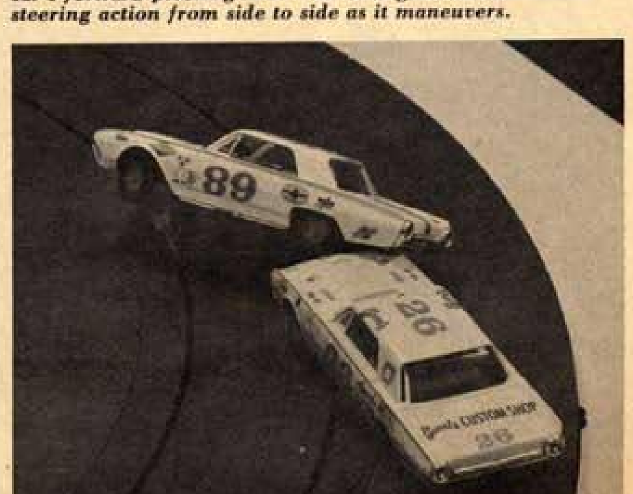
The hand-held steering and speed control unit sends six individual electrical messages to its car; power on or off, forward or reverse speed and right or left steering.



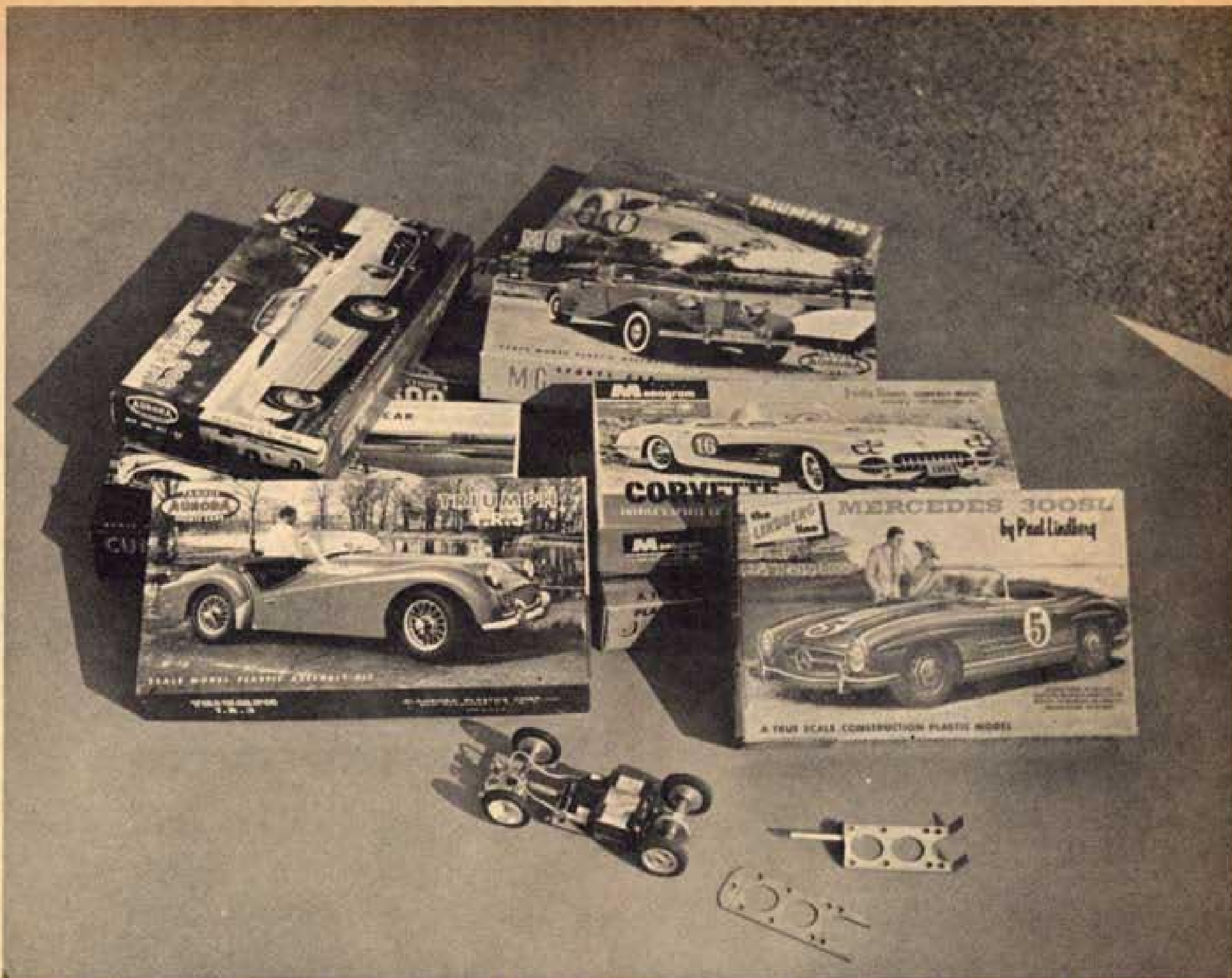
Here is the method in which the decoder is attached to the car's forward pivoting arm. This arm gives the car added steering action from side to side as it maneuvers.



Special track for the turnpike is designed for easy assembly. Interlocking features allow multiple sections to be fitted together quickly. Track has a textured surface.



Cars can spin out, crash or even reverse direction, but the driver can still right them and get back into action without using any other control than his steering wheel.



PICK ALMOST ANY SPORTS CAR KIT AND YOU WILL FIND A BODY SHELL THAT WILL FIT EASILY ONTO THIS RACING CHASSIS.

Convert your Model Cars to SLOT RACERS

Here is the step-by-step procedure on how you can put a racing motor and chassis beneath the shell of any inexpensive plastic car shell

By Bill Sippel

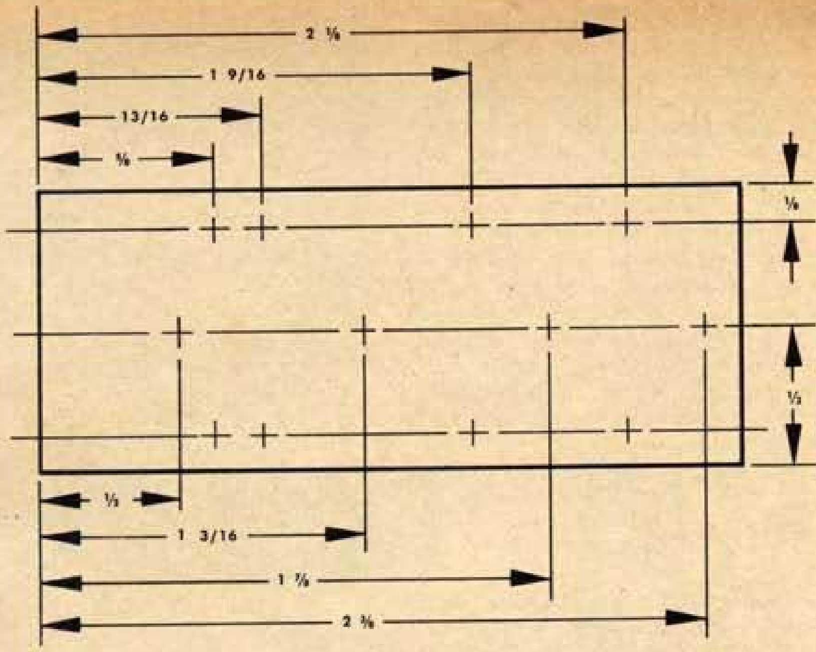
IN home building an electric racing car, nearly any plastic kit on the market can be motorized, regardless of style or size. At later dates we will cover other styles of cars and advanced construction. This time we will build a road racing sports or GT car.

For a newcomer it is wise to get started right. If you should become an enthusiast and stay with the hobby full scale, you are ready to go. There is a set of rules, established years ago in England, that is accepted throughout the world. With this standardization, cars are mailed all over the country and overseas to compete against one another without problems. We will build keeping this in mind.

The most commonly raced scale size is 1/32, with 1/24 being the other accepted size. In sport, GT and GP cars the manufacturers in America do not give much variety and nothing really current. Many enthusiasts build their own bodies and a few low production groups make the latest in racing bodies in the proper scales. There are also some nice bodies made in England. However, to stay in the learning state we will recommend an existing plastic kit. For a first car we will keep it simple, inexpensive, yet fast. There are quite a few choices; from Aurora, Lindberg, Monogram and others, ranging from twenty-nine to seventy-nine cents each.

After you've made your choice, with the body only glued together, minus the floor frame, axles, wheels, etc., we will start the frame. This will consist of one piece of brass .025 thickness, 2 1/2 inches long and 1 inch wide. Measure in 1/8 inch from each side of the brass and scribe these lines the full length. Measuring from one end, which will become the rear, scribe cross lines at 5/8, 13/16, 1 9/16 and 2 1/8 inches. Measuring from the same end, scribe a 2 3/8 inch line intersecting a line at the center, or 1/2 inch from either side. At all the above points drill or punch 1/8 inch holes.

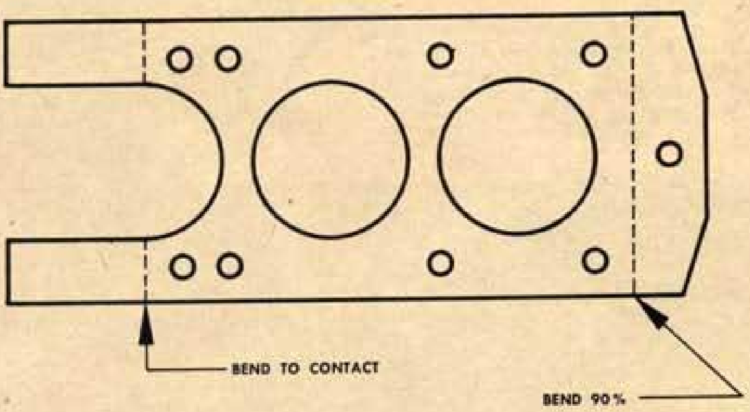
Your slot racing chassis is built about a brass plate altered to these dimensions. Holes can be cut with a drill press or inexpensive punch set.

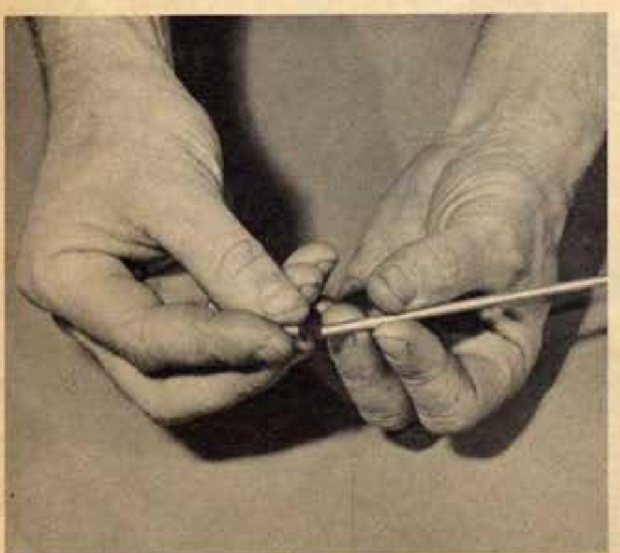


If you plan to make many frames and do not have a drill press handy, consider a small punch set. Hand Whitney set #5 works well. You will need an open area at the rear so the bottom of the gear can have rotational clearance. In our case we opened up quite an area and added two other holes for lightness and appearance. To make an exact duplication, measuring from the rear, up the center scribe cross lines at 1/2, 1 3/16 and 1 7/8 inches. At these points we punched 1/2-inch holes. On the rear one we cut through from the rear 1/4 inch from the edges to the hole, thus removing this piece. Otherwise, just make a gear clearance hole or slot. Then, 1/4 inch from the front, bend the frame upward to a 90 degree angle.

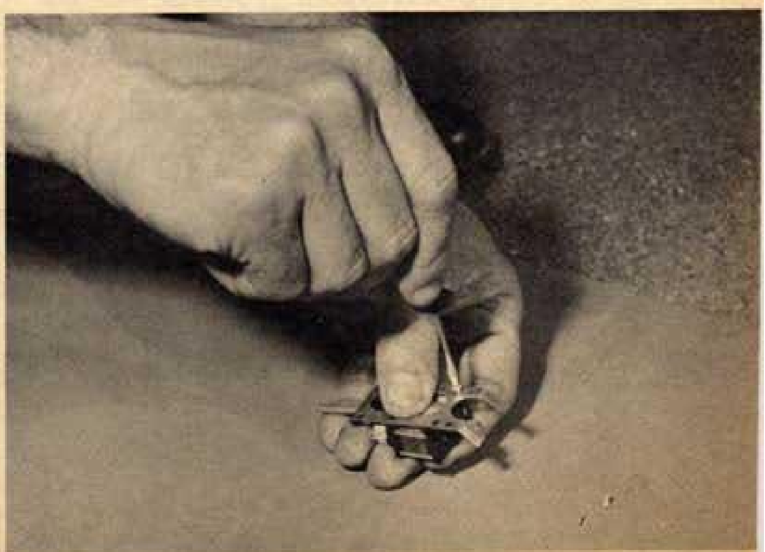
Our next step will be mounting the motor with the pinion gear installed. Using a Bonner motor, run 2-56 screws or self tapping screws through the frame holes into the motor. (If using 2-56 you must pre-tap the motor mounting holes.) The motor brush end of the motor should be to the front. The pinion gear should be onto the shaft as close to the bushing as possible, giving the most accurate alignment. Cut the excess shaft material off.

Next cut two pieces of tubing 1/4





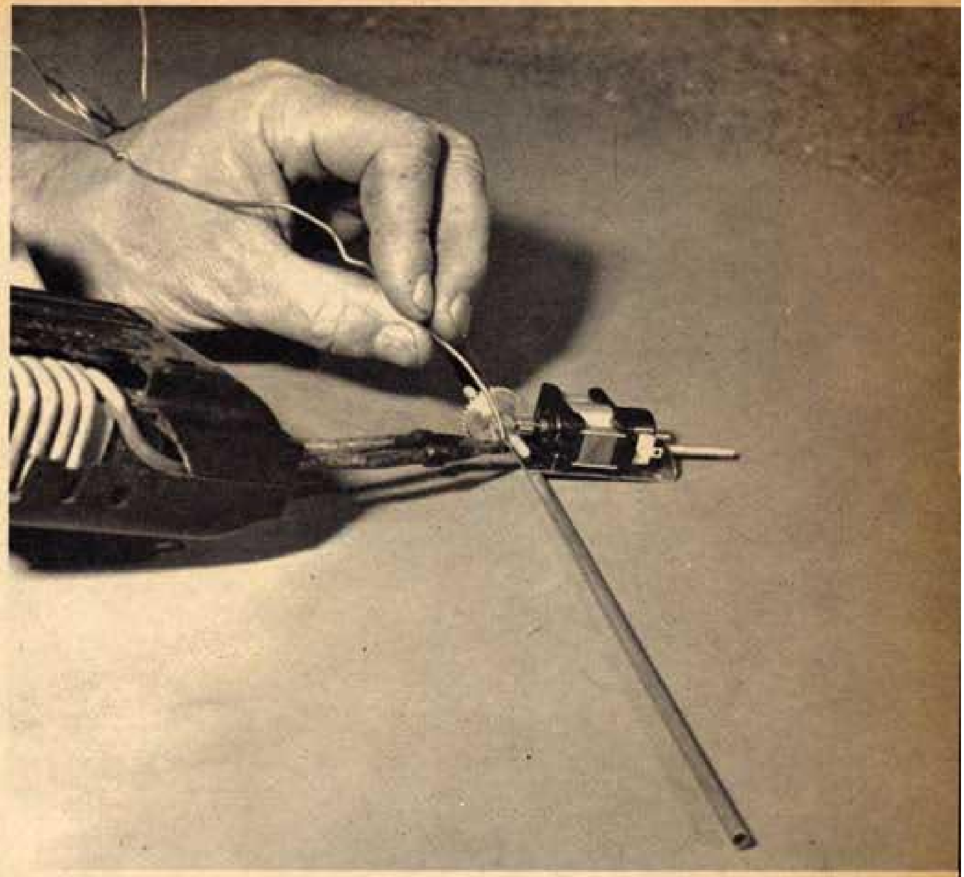
Bearings for the rear axle are 1/4-inch long pieces of Perfect brass tubing. Use either 3/32 or 1/8 inch I.D. (depending upon your choice for the size of the axle shaft.)



Small Bonner motor is fastened into place on the brass chassis with either 2-56 or self-tapping screws. If using the 2-56 screws, you must pre-tap the motor mounting holes.

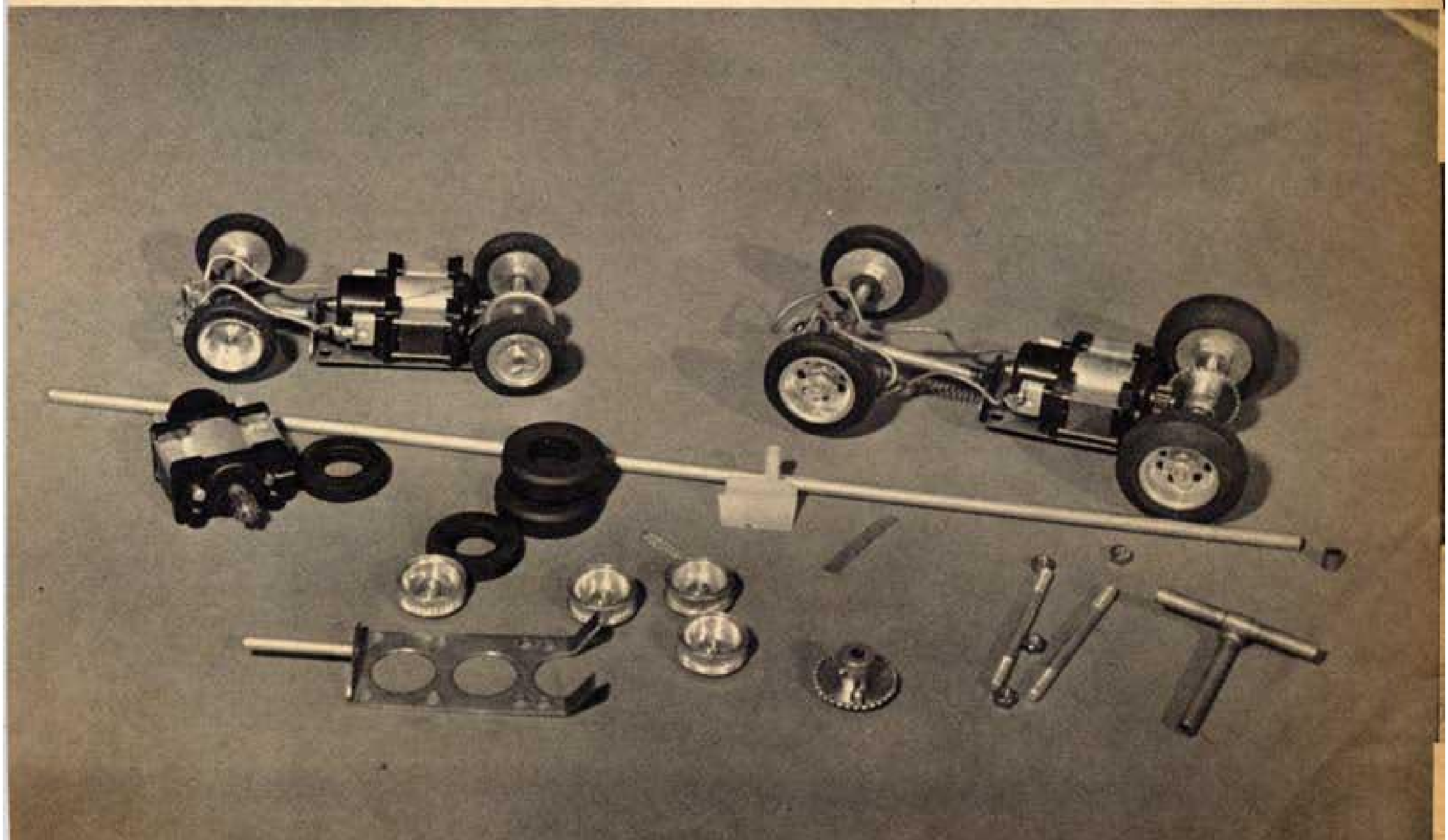
inch long from a stick of Perfect brass tubing with either 3/32 or 1/8 inch I.D. (depending on your choice of axle size). With the motor fastened in place, slip the crown gear onto the axle and the above cut bushings on either side. Set the crown gear in proper mesh with the pinion . . . proper distance back being intersection with the center of the pinion. Now the center of the motor shaft intersects the center of the axle shaft. In this position bend the two rear frame ears upward, making the bend just behind the rear holes, until they touch the bottoms of the bushings. Solder the bushings to the frame members and the rear end is completed.

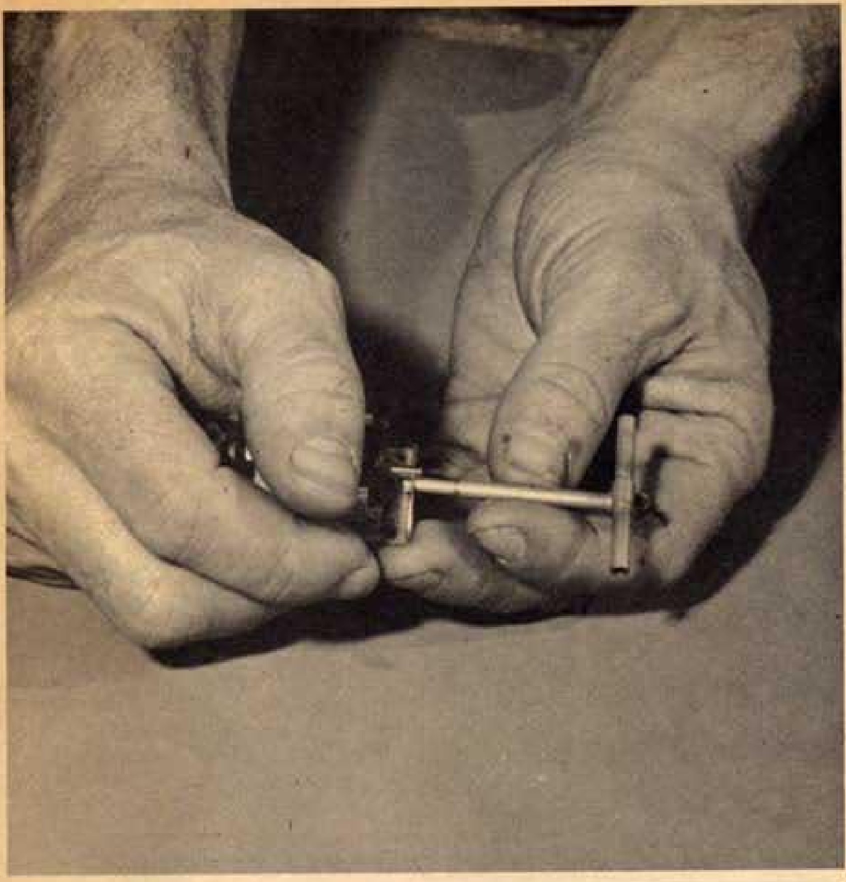
For beginners with soldering, preheat

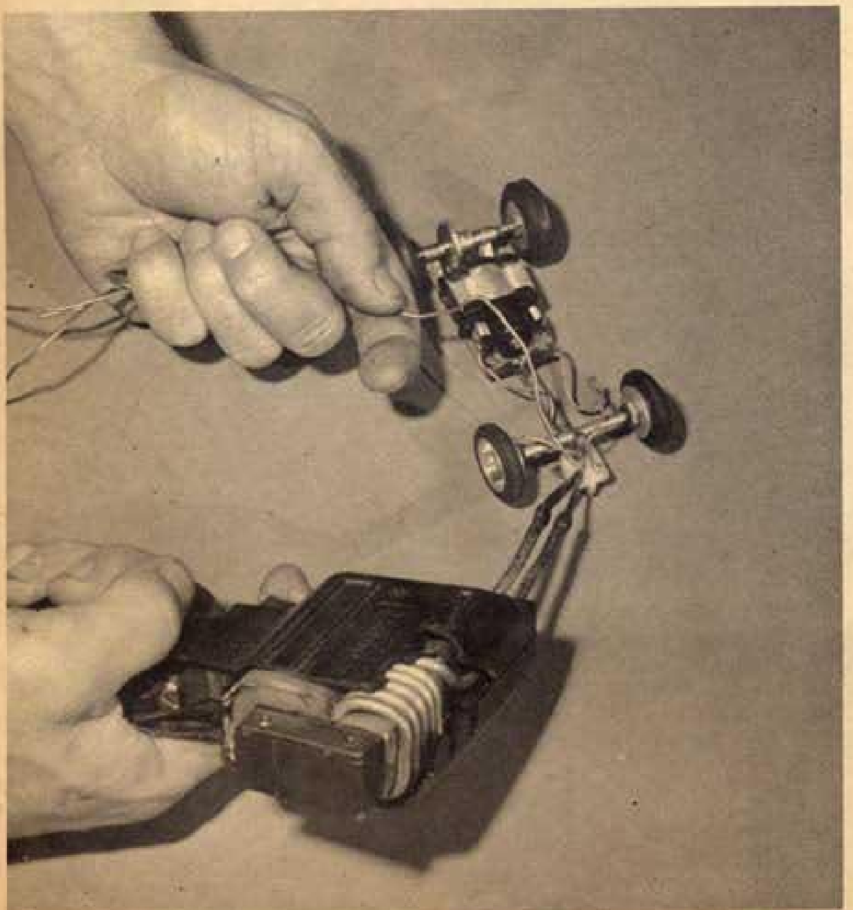


When the center of the motor shaft intersects the center of the axle shaft, bend the two rear frame ears up to touch the axle bearings. Solder these bushings to the frame members.

Two completed racing chassis and the components that go into their make-up. All of these elements are available at your favorite hobby supply dealer.







is important to eliminate cold solder joints. These look good but are poor bonds, breaking easily.

With the front end of the frame you can go two ways. If it is to be for one car only, you can make your forward tube the proper length to give proper wheelbase for the body you are using. However, it can be built telescoping so it becomes more universal. Also, at later dates, you can build various front ends, steerings, etc., using the same rear main frame we have just completed.

For just-set mounting from the Perfect tube, cut a tube the proper length to give proper wheelbase and one to give proper wheel tread. Also cut another bushing 1/4 inch long. Now solder the axle tube onto the top of the wheelbase stem, forming a "T." Then on the front, perpendicular to the track surface and axle shaft, solder the short 1/4 inch tube. Your guide shoe will fit into this. Now solder the unit to the front of the frame at the hole.

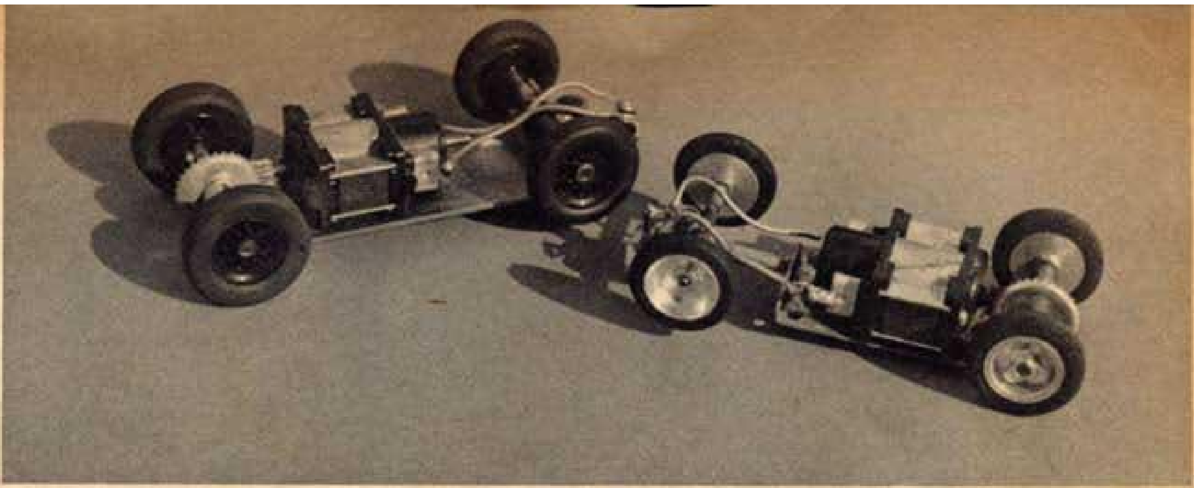
If you wish to use the front end unit in an adjustable state, solder a tube of the next smaller size onto the frame at the hole and slide the front end unit over it, tack-soldering it at the wheelbase position you need. This can be released and wheelbases changed in a few seconds at any time. They can also be removed for other experiments.

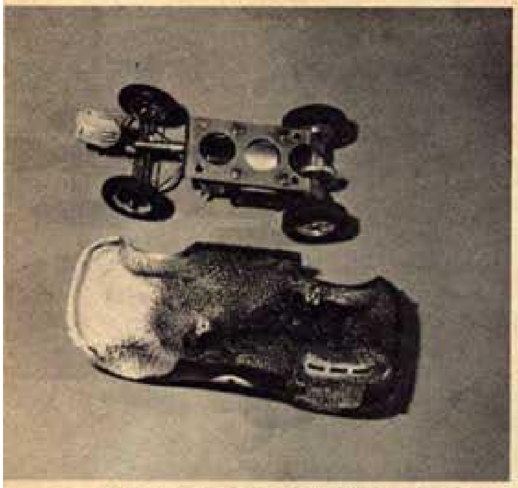
Your frame is now complete. For final assembly, insert the rear axle, using washers (preferably fiber) as spacers for proper gear mesh. Insert the front axle and guide shoe. Slip on the wheels and tires. Connect wires from motor brushes to the guide, and you are ready to run sans body.

Turn the body upside-down and set the frame inside, making sure of proper alignment and that no tires are rubbing, etc. Then, stick your remaining stick of tubing in past the frame by the mounting

You can make the front of your frame telescope to various lengths by varying the size of tubing. If you construct your frame this way, you will be able to change body sizes.

One of the final steps in assembly is to connect the wires from the motor brushes to the guide shoe.





Mounting posts that hold body to frame are glued to the body. 4-40 Screws hold the posts to the frame.

Two completed chassis demonstrate just how compact the unit is. One of the most critical factors in slot racing is the weight balance of the car. There must be enough weight on rear for tires to bite.

hole until it touches the inside of the body. Mark the length it need be at the frame and remove. Flip the stick over and repeat at the other mounting hole. Cut these lengths off-minus the thickness of a 4-40 nut. When cut, solder a 4-40 nut to the frame end of the tube.

Next, fasten the two mounting posts to the frame with 4-40 screws. Set the unit back into the body and bond the posts to the body with epoxys, resins, etc. Be careful of your choice of bonding agent on the plastic styrene bodies so you do not get warpage. When the bond has set up, removing the 4-40 screws makes your chassis demountable. Numerous bodies could be made to fit the one chassis, allowing you to run in more than one class.

Detail the body as you wish and you are ready to race. International rules call for at least two numbers a minimum of 2 inches high, windscreen, driver, and exhaust system.

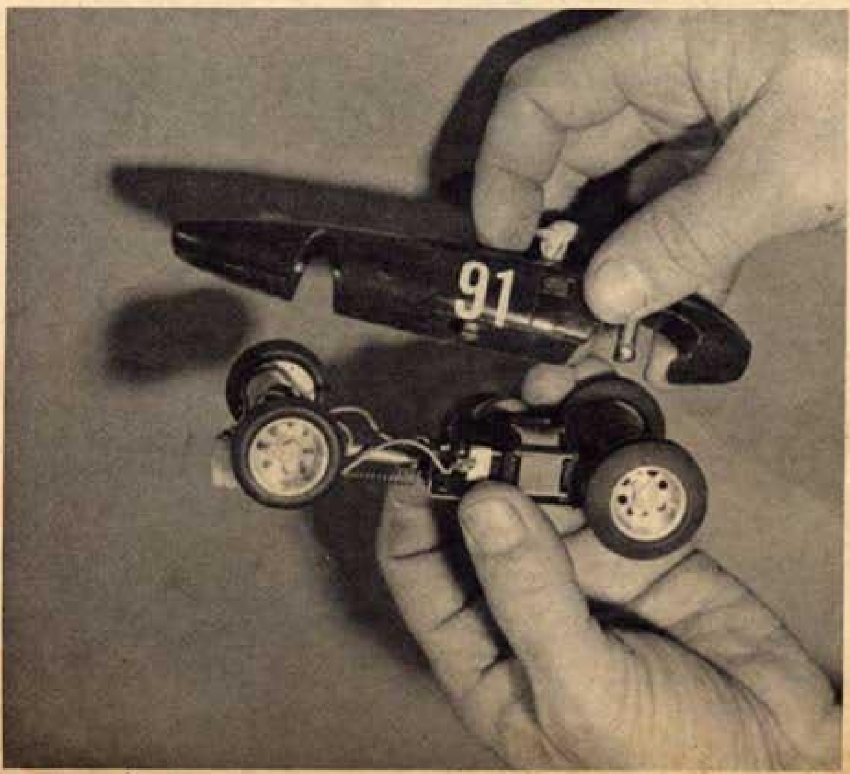
You might find that your first attempt may not run as well as a factory-built car and even cost you more. However, as you get deeper into the hobby you will find the home-built car is the faster and smoother unit, plus giving you the pride of building it yourself.

NOTE: In future articles we will go into advanced design-idea trends and basic problems. Also the building of better cars with custom built low production bodies, etc.

Tip: Be sure your gear mesh is not tight; car not too heavy; tires are on straight; axles free; guide pickups contacting good, etc. These are all things that help you go fast . . .

Items needed: Bonner motor; pinion gear; ring gear; motor mounting screws; 2 4-40 nuts and screws; one or two sticks of Perfect tubing; .025 brass 1 inch by 2 1/2 inches; solder; guide shoe; wheels; tires; axles; body kit; glue; wire; proper working tools.

Items needed to build the car are hobby shop over-the-counter parts. Remember, price is not always important . . . light weight and quality are. If you live in a parts free area there are many mail order shops throughout the USA to serve you.



You'll want to remove the body often (to check brushes, connections, etc.) so make sure your posts are secure.

Scuderia
SCALE

New AUTHENTIC bodies for TABLE TOP racers

One of the greatest needs created by the fantastic boom of slot racing in the U.S. centers about authentic sports and race car bodies. Late model shells of the European speedsters have been virtually non-existent up to now and table top enthusiasts have had to scratch-build their own. A new company has entered the picture. Labeled Scuderia Scale, it is producing four new 1/25th scale bodies of high impact styrene plastic. Their quality and assembling ease seem quite good.

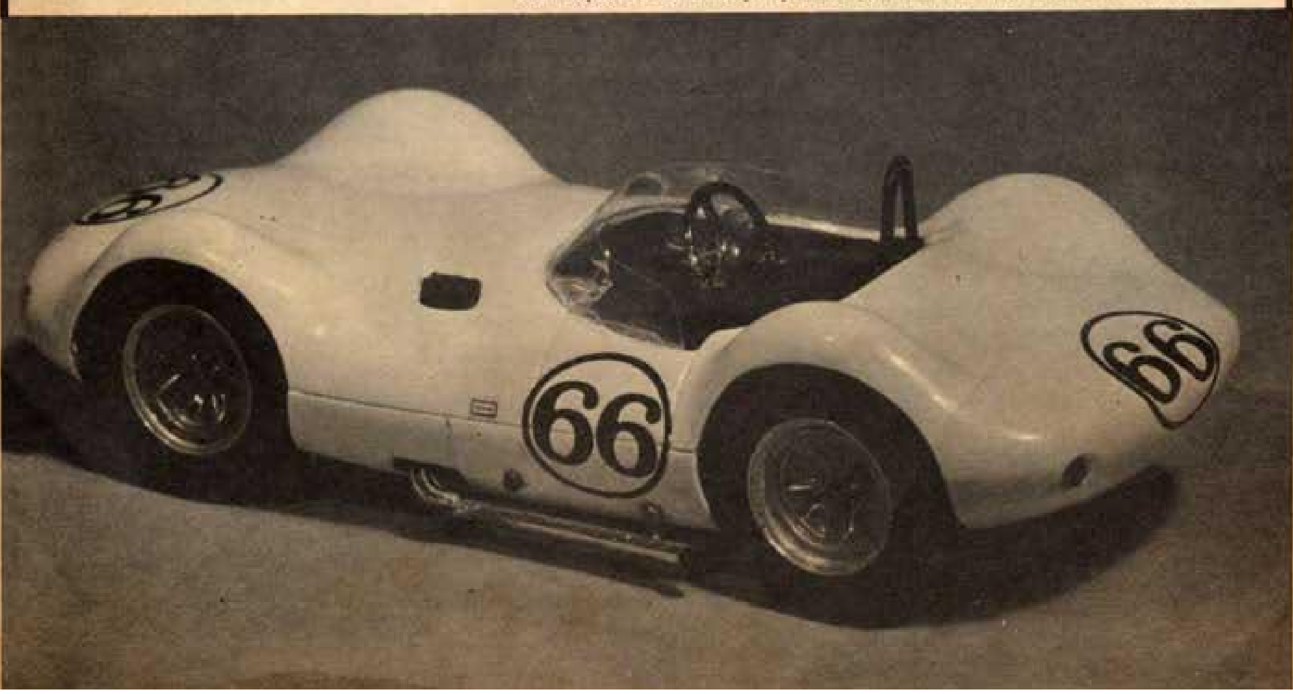




Fully assembled and ready for racing are the Lotus Elite (top) and the sleek Corvette Sting Ray. Any motor and chassis offered for slot racing will fit in these two. Cars come with complete bottoms.



Two more racing profiles familiar on the international circuits are the Porsche Formula I and II and the Chaparral. Each of these kits retails for $1.98. Company also offers a sheet styrene kit to build.



MCS *Spotlights:*

TOP *TABLE* *TOP* TRACK FROM *MICHIGAN*

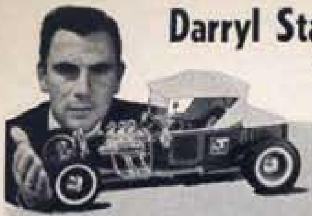






Popping up across the country are well organized and active table top racing clubs. The center of these groups is always the official club track. Each issue MODEL CAR SCIENCE will feature a top club and its home course. Our initial spotlight falls on the Motor City Model Raceways of Utica, Michigan. Under Prexy Pete Hagenbuch, the MCMR's have built a demanding and beautifully detailed competition circuit. A study of its features should give you plenty of ideas for your own home or club course. This great track was recently the scene of the First Annual Motor City Grand Prix, with participants appearing who represented clubs from many states.



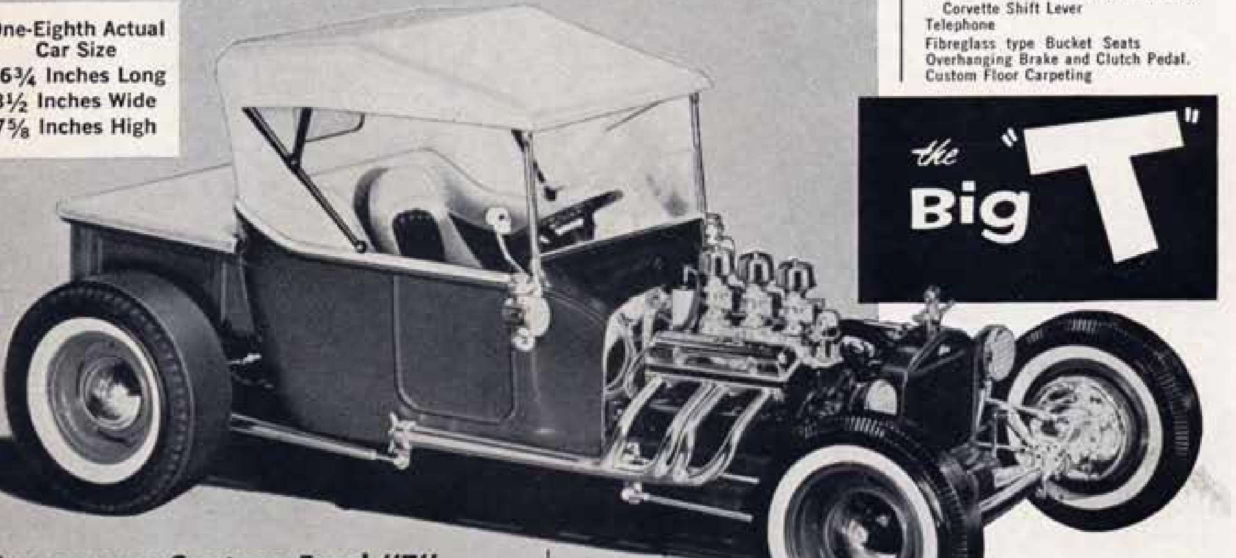


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16¾ Inches Long
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The BIG "T" kit contains accessories for setting up a fascinating show. These include Two Custom jacks for Display, **Two Screwdrivers,** Four **Open-End Wrenches,** One **Four-Way Lug Wrench,** Pliers, First Aid Kit, Six Stands and Bases for Roping Off "Exhibition Space," Fire Extinguisher, Large **Award Trophy,** Three Safety Flares.

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• Here is standout design and styling—super detail and type popularity—in the most magnificent custom model job you have ever seen. Built around the prized '24 Ford "T" roadster bucket, the big "T" sports components and parts from eleven different cars and is loaded with custom goodies.

• Let yourself go with this kit. Use the extra parts to make the Big "T" as you like it best, including a choice of interiors — one has a center console, telephone, radio and TV. There's a custom Chevy 283 mill with all the trimmings—'24 and '32 Ford radiator shells and custom grill—realistic soft and pliable "Firestone" tires and "Racemaster" dragster slicks—fibre glass type bucket seats with simulated Naugahyde upholstery—tools—trophy—show accessories. Model steers like a real car and can be motorized.

• Big deluxe kit contains 203 parts, precision molded in red, white, black, silver and clear plastic. 97 of the parts are in gleaming chrome plate. No painting required. 24-page assembly guide with 108 pictures, suggests other custom variations from mild to wild you can make.

• Get the Big "T" kit at neighborhood hobby shops and other stores and have the time of your life.

Monogram Models, Inc., Morton Grove, Illinois

Don't Accept a Copy or Substitute . . . Ask for Big "T" by Monogram.

Design Features Parts and Components Custom Variations

Working Action
Steering action is thru gear box at steering column base, to the Pitman arm, drag link and front wheels.
Model may be motorized with special power kit AK200. Dealers can supply.

Body and Top Features
1924 Model "T" Roadster Bucket
Authentic Cowl Lamps
4 Inch Chop from **Windshield Frame**
Sunken **Antenna for Radio**
Stock Top, Chopped 4 Inches

Interior Components
Simulated Pleated and Rolled Naugahyde.
Custom Dashboard with S/W Instruments
Reworked Cadillac Steering Wheel
Long **Shift Lever** with Skull Shift Knob
Custom Center Console with TV, Radio, Corvette Shift Lever
Telephone
Fibreglass type Bucket Seats
Overhanging Brake and Clutch Pedal.
Custom Floor Carpeting

Front End Features
1937 Ford **Tubular Axle,** mounted ahead of Model "A" **Front Spring**
Suicide Type Front Spring Perch
Chopped '24 Model "T" Grill Shell
Chopped '32 Ford Grill Shell with **Custom Grill**
Baldy Type **Hubcaps**
Custom **Headlight Brackets,** Tractor headlights
Tubular Shocks
Custom **Steering Arm**
Four Custom **Front Radius Rods**
Winged Boyce Moto-Meter

Wheels, Tires and Brakes
Wheels—'48 Mercury—Reversed—15 Inch
Front Tires—Firestone 6.00 x 15
Rear Tires—Racemaster Dragster Slicks 8.00 x 15
Brakes—'47 Ford Drums and Backing Plates

Bed Features
Model "A" Bed, Shortened
Model "A" Tailgate
Custom simulated Naugahyde Bed Cover
License Plate Holder
Cowl Lamp used as Stop Light, Gas Tank.

Frame and Rear End
Stepped Model "A" Frame
Model "A" **Rear Spring** and Mount
Halibrand **Quick Change Rear End** and Shortened **Torque Tube**
Custom **Rear Radius Rods**
Custom Exhaust S[illegible]

Engine and Parts
Chevrolet 283 Block
Edelbrock Manifold with 3 Stromberg Carburetors and Bonnet type **Air Cleaners**
Carburetor Linkage
Scintilla Vertex Magneto with Ignition Wires
Stock **Rocker Covers**
Custom **Exhaust Headers**
Custom **Firewall** with Moon Fuel Block
Clear Fuel Lines
'37 Buick Transmission
'56 Olds Tail Housing
Engine can be modified such as using 6 carburetors, fuel injection or a GMC blower, from Monogram Customizing Engine Kit, PE62 ($2.98)



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